# AMERICAN GAS ASSOCIATION MONTHLY

January 1929

Volume XI

Number 1

#### 1929

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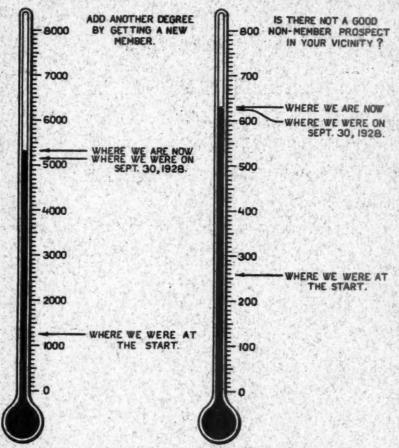


# Help Make Them Go Up!

In These Cases a Rising Temperature Means Progress

Thermometer

Our Individual Membership Our Gas Company Membership Thermometer



Send for Your Prescription (Application) Blanks

American Gas Association

420 Lexington Ave.

New York, N. Y.





# AMERICAN GAS ASSOCIATION MONTHLY 420 LEXINGTON AVENUE, NEW YORK, N. Y.

HOWARD F. WEEKS, Editor

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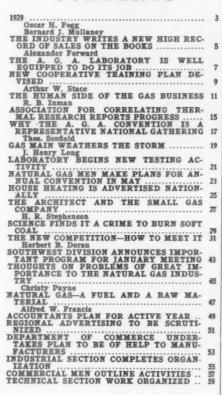
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# The Meeting of the Month

is that of the

Southwest Division Natural Gas Dept. American Gas Association

at

Shreveport, La.,

January 14-15



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#### Our Own Who's Who



@ Blank-Stoller

#### XLIV

#### Weldon Winans Freeman

Weldon Winans Freeman

Dorn, Exeter, Ontario, Canada, June 8, 1872. Received education in grammar and high schools in Listowel, Ontario. Began business career in 1889 in the office of general manager of Edison Electric Illuminating Co., Brooklyn, N. Y., and from this beginning advanced steadily to vice-president and general manager. Resigned in 1912 to become vice-president and general manager of the Alabama Power Co. After serving in this capacity for more than a year, he resigned late in 1913 become President of the Union Gas & Electric Co., Cincinnati, Ohio, at the same time being appointed a vice-president of the Columbia Gas & Electric Co., of which the Union Gas & Electric Co. is a major operating unit.

Is a vice-president of Columbia Gas & Electric Corp, and the Columbia Engineering and Management Corp.; chairman of the Board of the Union Gas & Electric Co., columbia Gas Supply Co., Columbia Industrial Co., Columbia Power Co., The Preston Oil Co., The United Fuel Gas Co., The Virginian Gasoline and Oil Co., Wood Coal Co., The Dayton Power and Light Co., The Gas and Edistric Appliance Co., The Hamilton Service Co., The Logan Gas Co., The Huntington Gas Co., The Cincinnati, Newport and Covington Railway, and the Union Light, Heat and Power Co.

Mr. Freeman has long been active in American Gas Association affairs and at present is a member of the Executive Board.

# **AMERICAN GAS ASSOCIATION** MONTHLY

Vol. XI

JANUARY, 1929

No. 1



By BERNARD J. MULLANEY Vice-President, American Gas Association

By OSCAR H. FOGG President, American Gas Association



REDOMINANT trends in the manufactured gas industry during 1928, consequently guideposts to 1919, appear to have been:

Scientific research in production, distribution and utilization

of gas.

B. J. Mullaney Consistent salespromotion to broaden and intensify the use of gas.

The significance of these trends may be illustrated by the following random cita-

Research for example is drawing the attention of practical minds to the possibilities of automatically heating homes in winter and cooling them in summer by means of one unified "plant," and of commercially producing solid carbon dioxide or "dry ice." It has reached the stage of commercial application in the mixing of manufactured and natural gases and in high-pressure long-distance distribution, both of which are of far

(Continued on page 4)

HILE the progress of the gas industry in 1928 has fully measured up to the prospects indicated for it during the early part of the year, it is possible at this time to visualize more clearly the exact direction which expansion in this field is likely to



O. H. Fogg

take during the period that is ahead.

Research along the lines, not only of technical and engineering studies, but also of gas utilization, marketing and all of the departments and activities that go to make up the rendering of good gas service throughout the nation, has given the entire industry a new vision and realization of vast potentialities for future development.

The consolidation of the American Gas Association with the Natural Gas Association of America, which took place during the latter part of 1927, has made it possible for these closely parallel branches of the industry to embark upon joint activities of a mutually advantageous character.

The American Gas Association Testing Laboratory, at Cleveland, Ohio, is extending its work notably in improving the efficiency of countless applications of gas fuel and in protecting the public against unsafe gas appliances. A recent report of the Laboratory states that 30 per cent of the gas-fired boilers and furnaces, 50 per cent of the water heaters, 60 per cent of the space heaters, and 75 per cent of the gas ranges sold during 1928 will bear the laboratory seal of approval.

Although it is too early as yet to make any more than a general estimate of the trend of gas consumption for the calendar year, observers' opinions are that a new advance in gas sales throughout the country will again be reflected in the final returns.

Outstanding developments include the increased use of gas for manufacturing purposes, as well as a considerable advance in the fields of domestic central heating, refrigeration, and large volume water heating.

In the last eight years the volume of manufactured gas used for industrial purposes has about doubled, while the amount of natural gas so used has more than doubled, increasing 109 per cent. Gas today has more than 21,000 separate uses in industry.

The average customer of manufactured gas now uses 70 per cent more gas per year than when the gas industry dominated the lighting field. As a domestic fuel it is in secure and growing favor. The securities of gas companies, together with those of all other utilities, are in the highest favor and public demand. Public confidence has never been stronger.

The gas industry is keeping step with the economic changes of the times and to a greater extent than ever before is anticipating the needs of the future. The prospects which lie before it are such as to justify every confidence in its continued growth and development and expansion into new and wider fields.

#### By B. J. Mullaney (Continued from page 3)

reaching economic import. Long distance distribution holds hope of gas service for thousands of communities that are too small to have had it heretofore.

Research and sales-promotion combined are rapidly increasing the use of gas for large-scale industrial operations, for a multitude of industrial heat treating processes, for house heating, for large volume water heating, gas motivated refrigeration, incineration of household wastes, laundry drying, and other domestic purposes in addition to cooking.

Each year the manufactured gas industry makes new "high" records. It has not had a decrease in annual sales or in annual gross revenue in the last twenty-one years. Aided by sound financing, constructive regulation, uniformly good public relations and ample producing and distributing facilities, its operating companies are in healthy condition and commercially alert to their opportunities.

# Nations Business Comments on Laboratory

NATIONS BUSINESS for December finds the dedication of the new A. G. A. Testing Laboratory building of particular interest, and comments as follows:

"Among the associations recognizing the value of a testing laboratory is the American Gas Association, which recently dedicated its second such laboratory.

"In dedicating the laboratory, Oscar H. Fogg, president of the Association, said:

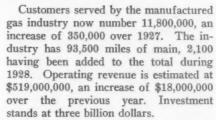
"'The laboratory is in no sense a commercial enterprise. It is the tangible expression of the industry's allegiance to the principle that its greatest progress will be made through providing the best possible service to the American people."

"In the two and a half years of the old laboratory's existence, it tested some 11,000 gas appliances and made beneficial suggestions for 98 per cent of these appliances. This is an excellent commentary on the service of the laboratory to trade associations.

"The new laboratory of the gas association is said to be the most completely equipped gas appliance and research laboratory anywhere. The building has a few rooms equipped for the personal use of any of the more than 200 manufacturers served."

#### The Industry Writes a New High Record of Sales on the Books

By ALEXANDER FORWARD Managing Director, American Gas Association



It is interesting to note that the manufactured gas industry has not reported a decrease in annual sales or annual gross revenue in the last twenty-one years. Total sales per capita have increased 70 per cent in ten years, thus reflecting a growth of sales per customer as well as an increased number of customers.

The present year has brought to gas men in America the keen realization that out of scientific research wisely planned and courageously prosecuted will develop a gas industry undreamed of ten years ago.

The extent to which gas service, both manufactured and natural, has captured the domestic cooking business of the nation, is strikingly revealed in figures recently made public as the result of a country-wide survey.

Of the 27,850,000 families residing in the United States, 12,970,000 cook with manufactured and natural gas; 8,290,000 cook with coal and wood; 6,000,000 with oil, and 590,000 with electricity.

Data from the American Gas Association and the U. S. Census Bureau show that there are 10,830,000 homes served with manufactured gas and 3,730,000 homes served with natural gas, making a total of 14,560,000 homes. In these 14,560,000 homes connected to gas mains, there are 12,977,000 gas ranges.

The tremendous growth of the byproduct coking industry in America has

(Continued on page 60)

The Industrial Record

NEW record for gas consumption, adoption of large scale research enterprises, scientific advancements of great potential significance in the manufacturing and utilization departments of the business and uniformly good public relations, sound regulation and growing earnings, have all served to make 1928 a memorable year in the gas industry.

The Statistical Department of the American Gas Association announces that preliminary estimates of sales for 1928 reveal an increase of 18 billion cu.ft. over the record-breaking total registered for 1927. The estimated 1928 figure is 490 billion cu.ft., a new high record, proportioned as follows:

338 billion cu.ft. for household purposes.
147 billion cu.ft. for industrial and commer-

5 billion cu.ft. for miscellaneous purposes.



# All through the Home

Throughout the house, gas lightens your labors—gives you more time for the children—keeps the family comfortable with ever-ready heat.

What would you do without the instant supply of hot water which gas provides the modern gas range that cooks food quickly and well—the gas radiator or fireplace for rooms where cosy warmth is needed on damp, chilly days!

Then there's the indoor laundry dryer, which lets you laugh at stormy wash days —the gas refrigerator, with its silent, efficient way of keeping food wholesome—and the incinerator in your cellar to burn disease-breeding garbage and trash before they accumulate.

And could you ever go back to an old-style furnace after once experiencing the pleas-

ure of wintering in a home automatically heated by clean, ashless, odorless fuel?

You'll find it interesting to investigate the many, many ways in which gas is helping to solve home problems by providing an all-round service that banishes drudgery and adds to the joy of living.

Call on your gas company for demon

strations of house heating, cooking, water heating, fireplaces, laundry drying, refrigeration, store heating, incineration, garage heating, and many other uses for GAS—THE BETTER FUEL.

Appliances that you desire may be purchased with a small down payment and convenient terms for the balance.



For the information of the pumple of New England a series of messages, of which there ones, is being published by the gas industry of New England. The commiss inseresting facts allows: GAS-THE SETTER FUEL and its impor-

#### Your Gas Company invites you to call for Demonstration

This advertisement closed the 1928 program of regional advertising conducted by the New England Gas Association. The advertisement, occupying full-page space, appeared in New England newspapers the week of Dec. 3. The aim of this advertisement was to call attention to every use of gas as well as to sum up the advertising preceding it. The program is to be continued next year, and the newspaper advertising will be augmented with direct mail and radio advertising

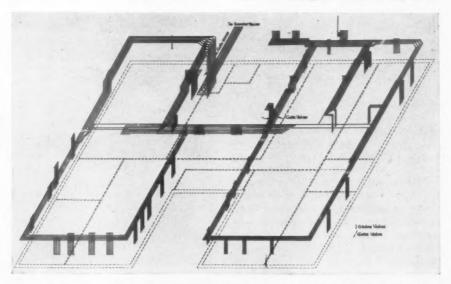
#### The A. G. A. Laboratory Is Well Equipped To Do Its Job

HAVING nearly a lineal foot of piping for each square foot of floor space in its testing departments, the American Gas Association's Testing Laboratory at Cleveland, Ohio, probably contains more pipe than any other building of its kind in the world. Altogether, more than two miles of piping, ranging from one-half to four inches in size, are used in this new \$150,000 building erected and dedicated recently to the development of the gas industry and the improvement of its public service. This institution houses all the appliance testing activities of the Association.

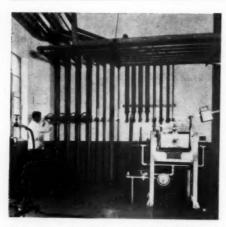
The purpose of such a large amount of piping is to supply four kinds of gas, hot and cold water, and compressed air and vacuum to from three to ten testing stations in each of twelve test rooms provided. The gas is piped into the building from three 5000-cu.ft. holders located at the rear of the premises and from the city mains. The control point is a booster house in which are located four-

inch valves on a similar sized manifold connected to the holders from the gas works near by and the city mains and to lines of the same size leading into the Laboratory building through under-ground conduits. Just inside the building the four-inch lines are connected to three-inch systems taking off in two directions. All pipe lines in the building are supported as near the first floor ceiling as practical on two by three-inch angle bars, either attached to the wall at one end and supported by a hanger on the other or supported on both ends by hangers from the ceiling. A pitch of one inch in 30 feet is given all piping to insure proper drain-

The six to eight pipe lines (compressed air and vacuum are not required in all test rooms) are led, therefore, along the walls and near the ceiling in the first floor rooms. The system is so designed that, by the manipulation of the proper valves, it is possible to cut out any test room without affecting the service to any other.



Isometric drawing of the service piping for testing purposes in new A. G. A. Laboratory building (plumbing for waste materials and steam heating not included)



How the service piping enters the building and how it is distributed in several directions from the mains

To do this it was necessary to make a closed system. Drops from the main supply lines terminate in globe valves  $5\frac{1}{2}$  feet above the floor in all testing rooms on the first floor. On the second floor risers, also equipped with globe valves, terminate about one foot above the floor line.

More than 60 gate valves and 350 globe valves are used in the service piping system described, exclusive of those used in the heating system.

It is not possible to describe in a brief article all the interesting details incorporated in this piping installation, but the accompanying views and isometric drawing will show the essentials of the entire system at a glance.

The new building is heated by a typical gas-fired, low-pressure, steam boiler system supplying approximately 58,000 square feet of cast iron wall radiation. The heat is furnished by two approved boilers so connected that either one or both may be used as desired. The boilers trimmings include a duplex water feed, a steam pressure regulator, gas pressure regulators, and automatic safety pilots for each burner. If, for any reason, the duplex water feed should fail to operate and the water level should reach a certain "lowest safe level," a special low water

fuel cut-off instantly checks the flow of gas to the burners. Also, the thermostatic pilots cut off the main gas supply in the event that any of the pilot lights become extinguished.

Provision is also made for the attachment of a 10-series room thermostat. Each of the safety and regulating devices mentioned is connected in series with magnetic valves in the main gas supply line to each boiler, so that each is closed by the action of any one of the nine devices.

Because of the excellent facilities afforded by the complete piping of gases and other materials to a large number of testing stations, and the fact that the personnel is kept comfortable by the welldesigned heating plant, it is possible for the Laboratory to conduct its testing work with greatest efficiency and a maximum degree of comfort.

To carry on its testing program, it has been necessary for the Laboratory to develop a great deal of special equipment and delicate apparatus which, in the hands of a technically trained staff of engineers, makes possible very accurate results. It is known as the most completely equipped gas appliance testing laboratory in the world today and is the only national institution in the world founded for the improvement of an industry through betterment of the appliances in which its product is utilized.



Incinerator, water heater, and boilers, all gasoperated, at the A. G. A. Testing Laboratory

#### New Cooperative Gas Training Plan Devised

Entire Industry Should Be Interested in New Program of University of Michigan and Detroit City Gas Co.

> By ARTHUR W. STACE Director, Michigan Public Utility Information Bureau

EREAFTER when a student of gas engineering enters the University of Michigan, he will be offered a fiveyear cooperative program in which periods of university study and plant experience are combined to give him an all-around training in gas theory and gas practice.

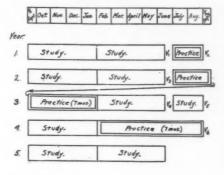
This program, leading to a degree -and possibly to an immediate job better than the average inexperienced graduate would be able to command-is made possible through an agreement en-

tered into by the College of Engineering of the University and the Detroit City Gas Company. Under this agreement the student in gas engineering will spend alternating extended periods in study at the University and in practice in the employ of the Detroit City Gas Company.

The gas engineering student will spend his freshman year in study at the University. If he is interested in following through the complete program, and if he is accepted by representatives of the University and the company, he will be employed by the Detroit City Gas Co. for a preliminary period of eight weeks during the summer.

#### PROPOSED COOPERATIVE SCHEDULE IN GAS ENGINEERING

University of Michigan Department of Chemical Engineering and Cooperating Gas Companies



Summary:

Practice Periods Preliminary (8 weeks).
 Regular (7 months each).

Study

8 Semesters.
1 Summer Session.
Vacation of 6 and 2 weeks each, indicated by v.
Total time required, 4 years, 10 months.

At the end of this preliminary period, if he has made a satisfactory record and is still interested, he may be formally enrolled for the cooperative course.

Two semesters will then be spent in study in the department of Chemical Engineering at the University. At the end of that period, the student will enter the employ of the Detroit City Gas Co. for a seven months' period, from June 1 to February 1. This will give him a chance to apply what he has learned in classroom and laboratory and also

note practical points on which he needs more schooling.

Returning to the University in February, he will remain at his studies for a solid year, including the summer session.

On the next February 1 he will reenter the employ of the Detroit City Gas Co., remaining another seven months, including the summer. On September 1, he will return to the University for his senior year, spending two semesters in study preliminary to his graduation in June.

The Detroit City Gas Co. will pay students during their practice periods in its employ. They will receive wages at the

same rate as men doing the same type of work, but not less than 50 cents an hour. The company will retain the same rights to transfer, discharge, or alter the rate of pay of the student employee as it has over its regular employees. It may limit the number of students enrolled in the cooperative course as it may deem wise.

The Detroit City Gas Co. agrees to give students entering upon this work a somewhat varied employment which will put them in direct contact with various aspects of gas manufacturing, distribution, and accounting.

It is believed that the combination of study and practice will spur the interest of gas engineering students and result in a more thorough training. They will have an opportunity to fix their classroom lessons in mind by applying them in practice. Likewise they will find in practice where they are lacking in theory and knowledge and will return to their textbooks with fresh zest and studious curiosity.

The agreement was signed by Dean

Herbert C. Sadler of the College of Engineering of the University of Michigan and C. W. Bennett, vice-president and general manager of the Detroit City Gas Co.

It is stated by Prof. A. H. White, head of the department of Chemical Engineering, that the agreement with the Detroit City Gas Co. is only the first of a number of agreements to the same end that the University of Michigan expects to enter into with various gas companies.

The agreement is unique among compacts between universities and industries seeking to give a student both theoretical and practical training, in that the working periods are of considerable length. Usually the working periods are for only a few weeks and the student practically remains in residence at the university. The agreement with the Detroit City Gas Co. provides for his entire removal from university residence for two periods of seven months each. Ann Arbor, the seat of the university, is forty miles from Detroit.

#### Newly-Developed Rotary Gas Brass Melter Glorifies Rhode Island Industry

NE of the prominent exhibits at the recent Providence industrial show, "Rhode Island Industry Glorified," was that devoted to industrial gas. The Providence Gas Company organized this exhibit for the purpose of demonstrating to New England manufacturers some of the many ways that gas can save them money and make their factories better places to work in.

The outstanding feature of the gas exhibit was the newly-developed rotary gas brass melter. This melter attracted the attention of many men interested in melting non-ferrous metals. It is something new and was pronounced as having great possibilities by the practical foundrymen who examined it.

The rotary gas brass melter is a prod-

uct of the American Gas Furnace Company. Research connected with its development was conducted under contract with the Committee on Industrial Gas Research of the American Gas Association. Tests have shown that the consumption of gas is remarkably low. What is probably of more importance is the fact that the metal loss or shrinkage is as low, or lower, than with any other melter, regardless of the source of energy used for heating. Maintaining low metal loss is one of the most important items connected with brass melting.

At the Providence show the new gas melter was inspected by men who have the responsibility of producing quality brass and aluminum castings at low cost in their foundries. They were told of

(Continued on page 60)

#### The Human Side of the Gas Business

Is the Side That Makes for Healthy, Happy Employees and a Satisfied Gas-Using Public

By R. B. INMAN

The United Gas Improvement Company, Philadelphia, Pa.

AMERICANS are successful because they are human to the *n*th degree. Busily, we as individuals, go about our work, apparently unmindful of our greater or lesser brothers, but deep in our hearts is graven that spirit which prompts, "Help the other fellow."

Let us try to analyze this human interest. In other words, let us look at the human side of the gas business. To do this, we shall view it from two angles, one of relationship between the company and its employees, and one of that existing between the company, considering the employees as an integral part, and the public or customer.

As we have already pointed to the foundation upon which the success of the gas business is built, it is therefore obvious that the men who pilot this successful utility, the executives, necessarily must be imbued with this spirit of human interest.

Granted this, then let us see what is done to further this interest among the employees in the gas industry. What is their program of education, for such it must be, to stimulate and bring to the highest point of efficiency that desire to help the other fellow regardless of his position or station in life.

One of the outstanding subjects of the program is accident prevention. It may be said that in this the gas industry holds a high position. Probably nothing that can be done will further cooperation and win loyalty from the employees more than the company's interest in safeguarding them against accident. So here is established one of the keynotes of harmonious relationship between company and employees, and accident prevention becomes an established routine process.

Prepared for the A. G. A. MONTHLY by the National Safety Council, Public Utilities Section, Publicity Committee, H. F. Webb, chairman.

What does this routine process consist of? Doubtless it is similar in all companies to that followed by my company.

An insurance and personnel department is a part of the company organization. This department is subdivided into several divisions, each functioning independently of the other yet, at the same time, cooperating under one head.

Accident prevention is carried on by the safety division under the direction of a supervisor assisted by trained engineers of broad experience in structural design and erection of buildings, plant layout, allocation and maintenance of equipment. gas manufacture, etc. The work these men do in an effort to put across accident prevention in the plants and make their fellow employees see and spread the spirit of cooperation is of a varied character and requires a constant exchange of ideas between themselves, the company, and the employees. Their efforts are reflected in successful safety work-in keeping fellow workers whole and in happy frames of mind.

The first requisite in accident prevention is, of course, the elimination of mechanical hazards that may exist in the machine units, in the buildings housing the machines, or about the premises. To eliminate such hazards, the safety engineers make detailed inspections of every nook and corner. The machines, processes, and modus operandi in general are watched and studied along with the housekeeping conditions, for poor housekeeping breeds carelessness and fire hazards—arch enemies of human life.

All hazardous and unfavorable conditions are reported and remedial recommendations are incorporated in the report. These reports go to the executives who, after noting, send them to department heads to be passed upon as to feasible

means of carrying out the recommendations. The company does not allow its responsibility to rest here. After the work is carried out, the reports go back to the executives through a reversed process, with notations, stating how each item has been acted upon and these notations are checked by the safety engineer on his next inspection.

Ventilation, lighting, heating conditions, and plant sanitation are also elements necessary to safe and efficient working conditions and the checking up of such conditions is done by the safety division.

Aside from making inspections and picking up accident hazards, the safety engineer is a messenger of good will to the employees to bring to their attention the company's desire to provide safe working conditions.

Beside the elimination of mechanical hazards, prevention of accidents is advanced by an organization of physically fit employees. Physical suffering causes a diversion of mind from the work in hand and an accident resulting from such diversion may be classed as a product of carelessness. The company maintains a medical division which helps to build up an organization of workers who produce results in accident prevention and cooperate among themselves and the company in a healthy and happy way. This department is in charge of a physician of mature experience who handles all classes of employees and all classes of cases.

Applicants for positions undergo a physical examination by the doctor. If accepted, a record is kept of the examination, including a physical history. Many companies include in their medical personnel occulists and dentists and in numerous instances the only charge is the actual cost of material. These medical departments function, of course, for other reasons. No great industrial organization, with hundreds of employees of all ages, can continually function without a number of minor accidents occurring or physical ailments developing in its ranks.

Therefore, dispensaries are maintained and operated under the direction of the company doctor.

Aside from this, company interest in the physical welfare of its employees and their families extends beyond the doors of its offices or the gates of its plants, and in cases of injury or illness of employees that require treatment at home, the company doctor cooperates with the family physician.

Still further along the line of first aid and medical assistance we go. Every employee and the majority of gas customers (let us touch on the angle of relationship between the company and the public here for just a minute) face the possible danger in handling and in the misuse or careless use of the principal commodity the company sells, gas. When emergencies arise wherein workmen and others are affected, there is the possibility of serious injury or death, unless first aid is immediately applied to the victim. Therefore, in further protection of the employees and in many instances the public, the company through its medical and safety divisions holds instruction courses consisting of lectures and demonstrations in the subject of first aid. ployees receiving this instruction are drilled continuously in the practices so that in an emergency they are fully equipped to render the treatment necessary to resuscitate persons. This instruction equips employees with sufficient knowledge to treat successfully cases where asphyxia occurs from electric shock, smoke and acid fumes, and drowning. In many companies the employees are taught the art of applying first aid in accident cases in general.

In order to stimulate interest in these subjects and show the company's interest in such service to its workers and the public, first-aid demonstrations and competitions are held at frequent periods. Prizes are awarded for efficiency and the public is invited to witness these demonstrations. This is done because of the fact that the company is made up of men

## BETTER BAKING...

MORE than a year ago, the American Gas Association entered into a cooperative plan of research with the American Institute of Baking to determine the best method of baking bread. Many of the results of this investigation are now available. If you want to know how you can improve the operating efficiency of your bake shop with modern methods and equipment, get in touch with us immediately. We are at your service at all times.

Industrial Division

#### CONSOLIDATED GAS COMPANY OF NEW YORK

GEO. B. CORTELYOU, President

4 Irving Place - Phone STUyvesant 4900

1823 - MORE THAN ONE HUNDRED YEARS OF UNINTERRUPTED PUBLIC SERVICE - 1929

The Consolidated Gas Co. does the obvious thing and tells the bakers of important research activities. This advertisement appeared in a bakers' magazine

who look on our gas business from the human side and are desirous of having the employees and the public know their attitude.

Supplementing the work of which we have written above is another phase of the company's activities, that of welfare work.

Workers cannot produce safely and efficiently if laboring under mental depressions. In such a state they are a menace, not only to themselves, but to their co-workers and the public. If Bill Smith's youngster meets with an accident, or Tom Brown's wife undergoes an operation, it costs money. Suppose none of these men have any financial reserve. The bills must be paid. Then comes the reaction. They get "in a hole," as we put it, and try as they will they cannot manage to get out. This causes worry, fatigue, and diversion of mind.

A means is provided for combating such occurrences in the form of a savings and beneficial association. The worker is urged to save something out of each pay, no matter how small the amount. These savings are deducted from the pay and credited to a savings account in the employee's name. Wise investments in substantial securities are made and the employee receives as high as five per cent interest. The company lends the necessary officers to carry on the work. The employee feels a sense of security in that he is accumulating a reserve for use in emergencies.

George Washington Jackson answers a knock at his door and finds standing on his step a colored friend who works with him in the generator house. On query, George finds that the caller is collecting funds for the burial of a mutual friend who died leaving a wife and four youngsters. He had no funds; he left no insurance. George gives his bit, considers, and feels pretty good in that if he were the next victim, his own family would be provided for. He works for the gas company and through its employees' association has secured life insurance at low rates. This insurance required no physical examination and was easily arranged. Besides life insurance, disability insurance may be obtained in the same manner and the employee protected against loss of wages due to offtime accidents or illness. Payment of the premiums is made from the employees' savings fund account.

Just one more feature of the human side of our industry. True, in the gas industry, is that axiom, "All work and no play makes Jack a dull boy." By this we mean everyone must have recreation. Some of us may be able to afford shows and movies and baseball games and the like; some of us have ample time and space in which to play-some of us have not. For the mutual benefit of all who wish to accept them, the company provides for its employees means of recreation and amusement. Musical organizations and dramatic clubs are fostered and financed by the company; rallies and dances are held and plays produced.

For what is this? To make for contentment, happiness, peace of mind and health, to promote efficiency, to give every one an equal chance.

As to the angle of relationship between the company and the public, we may sum up in a few sentences. First, what has produced this feeling of good will between the public and the gas industry? The public says the company is giving better, more efficient service? Why? Because the workers are kept in a healthier, happier, more efficient mood? Perhaps, but it seems more like a matter of education to us. In other words, the company's attitude toward the public is one of friendly good will.

A program requiring time and money unaccountable has been necessary in showing the employees and the public that the company has their interest at heart. It has all been done to produce a mutually profitable result and bring about a happier association in public service, and in its finality it boils itself down into one principle, the human side of our gas business, the side that makes for whole, healthy, happy employees and satisfied customers.

#### College Girls Now Study Gas Manufacturing at Allentown

CEDAR CREST COLLEGE girls now include the study of gas manufacturing and the proper use of gas appliances in their curriculum. The privilege of serving the students was given to the Allentown-Bethlehem Gas Company.

In recognition of the importance of gas in the industrial and domestic household field today instructors in household management and applied chemistry at the college availed themselves of the modernly equipped and serviced plant of the Allentown company.

The first part of the instruction included a trip through the plant at Didier. The young ladies were interested and exhibited a familiarity with the fundamentals of chemical laws and their application.

A later trip, including a visit to the ware-houses and shop, was followed by instruction in use of the complete line of modern gas appliances on display in the company's show-room at Allentown. The services of the company's industrial engineer and instructor in home economics were placed at the disposal of the young ladies.

Instructors report the student reaction as being most satisfactory and the service of definite value.



Advertising such as this in financial magazines creates gas prestige

## Association for Correlating Thermal Research Reports Progress

HE Association Correlating for Thermal Research was organized to act as a clearing house for engineering information and to encourage cooperation in the development of engineering data through research. The Plumbing and Heating Industries Bureau, the American Gas Association, the Heating and Piping Contractors National Association, and the

Research Laboratory of the American Society of Heating and Ventilating Engineers are at present supporting the organization. A number of other organizations have under consideration the possibility of joining in this support.

A technical librarian has been employed since June, 1928 with office at the Research Laboratory of the American Society of Heating and Ventilating Engineers, 4800 Forbes St., Pittsburgh, Pa.

In order to act as a clearing house for engineering information in this branch of the industry and profession, the Association is building up catalog files of available published data. These files will include an authors' index, and a cross-indexed file of subjects and titles, and a critical abstract file of more important material.

Three thousand books, pamphlets, magazines, and articles have already been indexed in the authors' file and cross-indexed in the titles and subject file, making a total of about 8,500 cards. While these files by no means cover the entire available literature on the subject, it is already complete enough to embrace the

THE Association for Correlating Thermal Research is doing a work which is of vital interest to the gas industry, as is shown in the brief report of the Association printed on this page.

A great deal of information will be made available to the industry through this Association, including much experimental data along certain subjects that could not be secured by conducting test work, either at the A. G. A. Testing Laboratory or other laboratories in the industry, except at great expense and trouble.

The American Gas Association is contributing to this Association, and members are urged to make full use of the work that is being done.—Editor.

entire field and to serve as a source of information such as we have never before had available.

The title and subjects file is divided into 75 major subjects, and, as an example, it contains 300 references on insulation of buildings, 250 references on steam and steam heating, 100 references on district heating, and 300 on heat transmission.

The critical abstract file has not yet been started. When it is developed, these cards will contain a critical abstract of what the articles or books contain, which will, in many cases, serve a person seeking information as well as the original article.

In order to encourage cooperation in the development of engineering data through research, a file is being built up of universities and other laboratories and organizations carrying on and promoting research in this branch of engineering. The Association stands ready to give the laboratory beginning a research investigation available information concerning the subject which it is expected to study. Where it is desired, aid will be given in the selection of subjects for research so as to make the study better fit into the needs of the industry. An effort will be made to have the results of the complete or partially complete study, no matter how insignificant, published so that it will be made available to anyone else investigating this or allied subjects. It is thought that by such help, the small efforts of many laboratories may be correlated so that the results may be pieced

(Continued on page 42)



The Compania Primitiva de Gas de Buenos Aires, Lda., uses this colorful poster. It is the work of a Spanish artist, well-known locally

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# Why the A. G. A. Convention is a Representative National Gathering

By THOS. SCOFIELD American Gas Association

WHO attends the A. G. A. conventions? Where do they come from? Is it true that the gas industry in every section of the country is represented? Do more manufacturers attend

than gas men? How many gas and manufacturer companies send representatives?

These are only a few of the varied questions which arise each year after the convention. It is probable that the reader has asked them along with many others, and this article attempts to give the answers as far as the 1928 A. G. A. convention is concerned.

From October 8th to 12th, 1928, 4516 gas men, manufacturers, and guests registered at the 10th annual A. G.A. convention. This registration was divided as follows:

Members of A. G. A	2296
Non-Members of A. G. A	1365
Guests	855

Next of interest is the geographical distribution of this attendance. This shows that with the exception of eight states, Arizona, Arkansas, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming, every state was represented. The following table gives the number in attendance from each state:

Alabama	23
California	24
Colorado	15
Connecticut	90
Delaware	25
Florida	9
Georgia	23
Illinois	297
Indiana	61
Iowa	24
Kansas	1
Kentucky	.19
Louisiana	7
Maine	12

Massachusetts	239
Michigan	134
Minnesota	19
Mississippi	1
Missouri	52
Nebraska	7
New Hampshire	18
	641
	170
North Carolina	15
North Dakota	2
Ohio	272
Oklahoma	15
Oregon	1
Pennsylvania	856
Rhode Island	27
South Carolina	5
South Dakota	2
Tennessee	18

Maryland .....

From outside the United States there were the following:

Texas .....

Vermont .....

Virginia .....

Washington .....

West Virginia .....

Canada	0	9	0	0	a						0			0	51
England															1
Germany															4

This indicates more clearly than ever that the convention has truly become a national gathering of the gas industry.

But there are still other questions that remain to be answered. How about the relative number of gas men and manufacturers? Let us see what the records show on this.

We find that there were 1813 gas men present and 1246 manufacturers. These gas men came from 338 companies and the manufacturers were divided between 317 companies.

Now let us go still a step farther. Let us see how the delegations from the various companies stand. Taking the gas companies first, we find:

147	companies	represented	by	1	in	attendance	
57	companies	represented	by	2	in	attendance	
40	companies	represented	by	3	in	attendance	
23	companies	represented	by	4	in	attendance	
13	companies	represented	by	5	in	attendance	
9	companies	represented	by	6	in	attendance	
9	companies	represented	by	7	in	attendance	
8	companies	represented	by	8	in	attendance	
3	companies	represented	by	9	in	attendance	

attendance
The similar compilation for our manufacturers shows:

companies represented by 10 or more in

96	companies	represented	by	1	in	attendance
54		represented		2	in	attendance
43		represented		3	in	attendance
33	companies	represented	by	4	in	attendance
20	companies	represented	by	5	in	attendance
19	companies	represented	by	6	in	attendance
18	companies	represented	by	7	in	attendance
4	companies	represented	bv	8	in	attendance
3	companies	represented	by	9	in	attendance
27	companies	represented	by			

Those manufacturer companies who exhibited had 1081 representatives, or an average delegation of 5 for each company exhibiting.

You may ask how large were those delegations of 10 or over? Well, we found that in the case of the gas companies they vary from 10 in the case of two companies, 11 in the case of five companies, 12 in the case of two companies, all the way up the line to the maximum delegation of 241. In the case of the manufacturers the figures show seven companies with 10, four companies with 11, and from there increasing up to the maximum representation of 34.

A glance at the geographical distribution of those in attendance shows that while the East naturally had more men in attendance, due to the close proximity of the convention site, still our Middle West members, our Southern and Southwest members and our members from the Pacific Coast were more than fairly represented.

Possibly the geographical records of this last convention bring out the most amazing figure of all—the miles traveled by those attending in reaching Atlantic City and returning to their home towns.

We find that the gas men, exclusive of the foreign delegates, covered the astounding distance of 1,170,000 miles, while our manufacturers traveled 860,000 miles. When we include the distance journeyed by our guests, which figures 580,000 miles, we arrive at the grand total of 2,610,000 miles.

Scientists tell us that it is 25,000 miles, in round numbers, around the earth at its equator. Then, in other words, the total travel in connection with the 10th annual convention represented more than 104 times the earth's largest circumference. Scientists also tell us that the mean distance from the earth to the moon is 238,-857 miles. Therefore, the travel in connection with our last convention would have taken us to the moon and back five times with mileage to spare.

Is there anything that shows more clearly than the figures from this last convention, the magnitude, progressiveness, and virility of our industry today?



Designs on the elevator doors in the lobby of the new Portland, Ore., Gas and Coke Co. building symbolize power, gas, light, and heat

#### Gas Main Weathers the Storm

Large Welded Main at Yeadon, Pa., Is Suspended by Washout But Does Not Break

By J. HENRY LONG

Engineering Assistant, Philadelphia Suburban-Counties Gas & Electric Co., Chester, Pa.

N the spring of 1927, a 12 inch steel high-pressure transmission gas main was run by the forces of the Delaware Division, Philadelphia Suburban-Counties Gas and Electric Co., to connect the Upper Darby holder to the district governor at Pine and Mill Streets, Darby. That main also formed part of a connecting system between the Upper Darby Gas Handling Station and the Chester Gas Plant, which is located on the banks of the Delaware River. The main was

run in accordance with the usual practice, using 12 inch—45 degree bevel steel pipe, extra heavy semi-steel valves, without the use of expansion joints, welded for the entire length, and laid at a depth of three feet, six inches.

A severe rain and wind storm spread over the territory on August 17, 1928, and caused considerable damage. Although gas service was not disturbed by the storm, there were numerous washouts and floods which made it difficult to maintain uninterrupted service.

The greatest damage occurred where the continuous downpour of rain caused a sewer pipe to collapse under the pressure of the surface water. The sewer was the only means of draining the water from the section, and on this particular occasion it was not large enough. When the pipe collapsed the released water washed away the earth in which the 12 inch high-pressure gas transmission main had been laid, and left the main exposed in a suspended position, as shown in the accompanying photograph, for a distance of 97 feet.



A 12-inch welded high-pressure line was left exposed in a suspended position by a washout during a heavy storm for a distance of 97 feet without any break in the joints. This is one way of testing welded joints

As the section is an undeveloped one, which is impassable for vehicular traffic, and as no difficulties had developed along the line of main, the pipe remained in a "state of suspense" for several weeks before it was discovered.

A first glance at the photograph may lead one to believe that there is a slight sag in the pipe, and that it was near its yielding point when it was discovered. The slight dip to the pipe is not due to any strain in the metal itself, but is attributed to the fact that the main starts up a hill at that point and the bend was placed there when it was laid. An examination failed to reveal any sags in the pipe due to the suspension.

In the suspended portion of the main five welded joints were exposed, and, although there was an enormous strain on the welded portions of the main particularly, they all held intact. The Delaware Division believes this to be a good test of welded joints under adverse conditions. It is reasonable to believe that the pipe had to support much more than its own weight in its suspended position.

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# College Student Proves Himself a Hero



W. E. Foy

WILLIAM ED-WARD FOY is a hero.

Heroism is not unknown to the gas industry. Hundreds of employees have rendered signal service by saving human lives, and the industry has paid its tribute to these life-savers by awarding suitable medals and by other forms of recognition. Foy's case is different, however,

not because his act lacked personal danger, but because he is a student of Villa Nova College, and rendered his service to two employees of the Philadelphia Suburban-Counties Gas and Electric Co.

Foy, of St. Augustine, Florida, is a second year medical student at the Villa Nova College. On Thursday afternoon, Oct. 11, 1928, he was attracted to a gas governor pit located on Lancaster Ave. and Ithan Ave., in Villa Nova, by seeing some five or six persons standing around an open manhole, shouting and gesticulating rather widely. Forcing his way to the edge of the hole, he saw two men lying in the bottom of the pit overcome by gas. Without any hesitation, Foy removed his coat and prepared to enter the pit, although the odor of gas was very strong.

Those gathered around the opening remonstrated and told him it was foolhardy and dangerous to venture into the pit after the men. Foy fully realized the attending danger, but was not dismayed. He started down after the men, and at this time, efforts were made by those gathered to hold him back, but after a short struggle, he managed to break away from them, after they had torn his shirt almost off his back.

After entering the pit he then boosted the lighter of the two men up to the top and out on the street. Then, securing a rope, he again entered the pit, placed the rope around the body of the second man and placed him in a position to be hoisted out by those above. He followed pushing from below. Upon reaching the street level, after both men were out of the pit, he fell to the street in an unconscious condition due to his strenuous efforts and the excessive inhalation of gas. An ambulance arriving on the scene at this time took Foy to the Bryn Mawr, Pa., hospital, where he was revived in about ten minutes. Not so with the two men he had rescued, for it required about

one hour of constant application of the Shafer prone pressure method of resuscitation to revive these men to the point where they could be removed to hospital without any danger of a relapse. The work of resuscitation was carried out successfully by employees of the company, who are thoroughly familiar with this work.

The accident was caused by a workman's entering the pit without safety devices, in disobedience to orders. The second workman went to his assistance, and was overcome, as in his ecitement he neglected the safety devices.

#### Booklet on Gas Leakage Is Available

A NEW publication has been issued by the Bureau of Mines, Department of Commerce: Bulletin 265, "Leakage from High-Pressure Natural Gas Transmission Lines," price 25 cents.

This work is by E. L. Rawlins and L. D. Wosk, and is of particular interest to members of the Natural Gas Department of the American Gas Association.

It is particularly well illustrated, and contains, among other things, the following:

"Methods of Determining Leakage from High-Pressure Transmission Lines."

"Relation Between Rate of Leakage and Pressure."

"Field Tests of Transmission Lines."

"Economic Aspects of Leakage Prevention."
"Summary of Results of Study of Leakage
Losses from High-Pressure Natural Gas Transmission Lines."

#### THE HONOR ROLL

THE Executive Board of the Association, in specifying the dues of manufacturer company members, created a class of maximum dues at \$5,000 per annum. It was the thought that some of the larger companies desiring to make a substantial contribution to the work of the Association would be glad of the opportunity to do so regardless of whether their dues would reach that sum under the block system of assessment.

under the block system of assessment. Already in the present Association year two progressive companies have paid the maximum dues of \$5,000 each and the officers and directors are glad to make this public acknowledgment of their substantial cooperation with the gas industry of America. These companies are as follows:

Bartlett Hayward Co., Baltimore, Md. The American Meter Co., New York, N. Y.

#### Laboratory Begins New Testing Activity

Is Now Testing and Approving Hot Plates and Laundry Stoves

N November 21 the Association's Executive Board approved, as final, the new requirements for hot plates and laundry stoves. This action makes it possible for the Laboratory to begin approval tests on equipment of this kind.



New Testing Activity at Laboratory

The construction requirements for hot plates and laundry stoves are quite similar in many respects to those for gas ranges, the only difference being that a few require more durable construction in line with the industry's desire to make approved appliances increasingly better. The addition of leg sheets and a more stringent limitation in the gauge of metal used are two important instances of this kind. Another noteworthy requirement provides that hose-end nozzles must not be furnished except on one-burner hot plates or laundry stoves not equipped with gas cocks. Where a gas cock is supplied to be used between the hose-end nozzle and the burner, a common though hazardous practice is to turn the gas off at the appliance cock, thus leaving full gas pressure in the tubing when the appliance is not in use.

Performance requirements outlined by the committee on hot plates and laundry stoves are almost identical with those for top burners on gas ranges. The same is true with respect to the requirements for laundry stoves.

The committee which prepared the testing standards for hot plates and laundry stoves is the same as that for gas ranges. Mr. Winterstein, as chairman of the committee, is one of the first gas engineers in the country to begin the preparation of approval requirements for gas

appliances and the new requirements prepared by his committee are indicative of the thoroughness with which his committees have always carried on their work.

With the beginning of approval testing on hot plates and laundry stoves,

the Testing Laboratory is actively engaged in the examination of five major types of domestic gas appliances. Several manufacturers have already submitted samples of this kind to the Laboratory for test. So many others are preparing to do so that, within a comparatively short time, gas companies should have at their disposal a list sufficiently large to enable them to limit their sales exclusively to approved types.

#### Hot Plate and Laundry Stove Requirements

A 16-PAGE booklet giving the "Approval Requirements for Hot Plates and Laundry Stoves" has just been published by the American Gas Association.

This booklet gives the following information:

- 1. Construction requirements.
- 2. Performance requirements.
- Names and definitions of hot-plate and laundry stove parts.

In the preface to the booklet it is stated that "these requirements should be construed as MINIMUM requirements for safe operation, satisfactory performance, and substantial and durable construction. In their preparation sight was not lost of the necessity of providing every opportunity for manufacturers to improve hot plates and laundry stoves, and to embody individuality in their construction. Effort was made to avoid the inclusion of any requirement that would retard developments tending

to increased comfort and safety or economy in labor, time, and cost to the user. It might be supposed that merchandise constructed in accordance with certain requirements would be the same, or essentially the same, regardless of the manufacture—the term requirement being easily capable of an interpretation to convey this impression. However, requirements may be of widely different character and, as herein given, they are, for a large part, in the nature of performance requirements, with certain constructional requirements that do not block the way for the embodiment of ingenuity of design and improvement. As the art progresses, changes in the Approval Requirements may be necessary.

"The American Gas Safety Code was followed in the preparation of these Requirements which have been made to accord with the rules of that Code."

C. C. Winterstein, of the U. G. I. Contracting Co., Philadelphia, Pa., is chairman of the sub-committee on Approval Requirements for Hot Plates and Laundry Stoves.

#### Sales Course Quotes Phrases to Interest Casual Caller

PHRASES that Win the Interest of the Casual Caller at the Store" is the title of an especially interesting page in one of the units of the new A. G. A. Course in Domestic Gas Salesmanship. The following is abstracted from the material presented to be of value to the gas company salesman:

"That is a good looking range, isn't it? And another thing is that it saves a lot of time and worry. Now with this oven-heat regulator—

"That refrigerator would look well anywhere, wouldn't it? And in addition, it's a marvel for keeping food fresh without any effort on your part.

"This water heater is right up to date. All you have to do to get hot water is to turn on the faucet. It's a great convenience, isn't it?

"It's worth a lot to get rid of the garbage can, isn't it? This incinerator does away with the unpleasantness and danger to health that comes from garbage.

"That's almost an ideal way to heat a room. A lady who bought a room heater like this said to me recently that she's never been so comfortable before.

"It certainly is convenient having your water heater right in the washer and kept hot, isn't it? And what's more—

"Great idea, isn't it, not having to worry about hanging clothes outside? With this dryer—

"That certainly simplifies the ironing prob-

lem, doesn't it? With this ironer there's practically no effort in ironing even big, flat pieces quickly."

#### Ryan Talks at Statistical Association Meeting

PAUL RYAN, statistician, American Gas Association, contributed a valuable paper on the "Gas Industry" at a symposium on the New Institutes of Industry and Statistical Control at the annual convention of the American Statistical Association, held in Chicago, Ill., Dec. 26 to 29.

Carl Snyder, statistician of the Federal Reserve Bank of New York, is president of the statistical association. He was a speaker at the general sessions of the recent A. G. A. convention.

#### Medical Magazine Editor Takes Text from Gas Industry

THE gas industry and its successful fight against competition is used by H. Sheridan Baketel, A. M., M. D., and editor of *Medical Economics*, as the subject of an editorial in the November issue of his magazine.

Under the heading "Commodities that Go Out of Date," Dr. Baketel writes as follows:

"When electricity took over the job of lighting our homes and offices, not so many years ago, people shook their heads sadly and murmured, "Too bad for people who hold shares in the gas industry!"

"So it seemed, for a while. Then somebody conceived the idea of heating homes with gas; somebody else discovered that gas made an economical, waste-less fuel for use in industry, and meanwhile others were busy devising more efficient and more beautiful gas stoves for housewives. The result is that today the gas industry is in a stronger position than before.

"This is only one of many instances in which commodities have staged successful comebacks through adapting themselves to the changing times.

"The point that I wish to make here is that the medical profession is in a much better position to prepare for the future than was the gas industry twenty years ago. The development of electricity came much more rapidly than the developments of preventive medicine have, or are likely to come.

"It was educational advertising, supported cooperatively by all the individual gas companies, which enabled the gas industry to 'sell' the public on the new uses of gas. It will be educational advertising, supported by physicians cooperatively which will 'sell' preventive medicine."

# Natural Gas Men Make Plans for Annual Convention in May

ALREADY the Natural Gas
Department of the American Gas Association is hard at
work on the details of the annual
convention of the Department,
which will be held in Kansas City,
Mo., early in May. The 1929
meeting will establish some new
records, and the convention will
be one of the largest and best
organized ever offered the natural gas man.

At a convention conference held in Kansas City recently, it was decided that the exhibition of appliances and equipment will be held in the Convention Hall. There will be adequate space for

the exhibition, and in view of the rapid expansion of the natural gas industry in the past year, it is fully expected that this "adequate space" will be severely taxed. The exhibition will probably be one of the largest ever held at a natural gas convention.

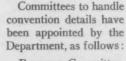
Convention sessions will be held in the Missouri Theatre, which is directly across the street from the rear of the Convention Hall. The Convention Headquarters will be in the Hotel

Muehlebach, Kansas City, Missouri.

It is too early to make definite announcements concerning the convention, but every natural gas man can rest assured that his presence at Kansas City the week of May 6 will be especially necessary if he wants to keep abreast of the times and hear how his industry is growing rapidly and surely.



Air view of Kansas City is shown above, and below is the Hotel Muchlebach



Program Committee, A. W. Leonard, Devonian Oil Co., Tulsa, Okla., chairman.

Entertainment Committee, T. J. Strickler, Kansas City Gas Co., Kansas City, Mo., chairman.

Exhibition Committee, F. M. Rosenkrans, Gas Service Co., Kansas City, Mo., chairman.

Transportation Committee, Art Booth,

Pittsburgh Supply Co., Pittsburgh, Pa.

Further announcements of the annual meeting of the Natural Gas Department will be given in the next issue of the Monthly. Present indications point to a record-breaking attendance, a large exhibition of appliances and equipment, and a program of great value to the entire natural gas branch of the industry.



#### Samuel Insull, Jr., Talks on Holding Companies

R EDUCTIONS in gas and electric rates in towns served by the Northern Indiana Public Service Co. since it became a subsidiary of the Midland Utilities Co. have saved consumers \$1,295,441 a year, Samuel Insull, Jr., president of the company, told stockholders and customers at a meeting held in Lafayette, Ind., on Dec. 14.

A total of 251 changes in rate schedules for gas or electric service resulting in savings to customers have been made during the last five years, Mr. Insull said. Reductions in electric rates have resulted in an annual saving to customers of \$750,029, while lower gas rates have saved consumers \$545,412 a year, he added.

"This great annual saving to our customers through lowered rates is one of the results of holding or investment company control of public utility companies which serve the public," said Mr. Insull. "The Northern Indiana Public Service Co. is controlled through common stock ownership by the Midland Utilities Co. which also controls several other important utility companies operating chiefly in northern Indiana and western Ohio.

"The towns now served by the Northern Indiana Public Service Co. only a little more than five years ago were served by twenty-two different companies, most of them under different managements. Many of the towns served by those companies were isolated. They were not interconnected by electric transmission lines or gas pipe lines with other sources of supply. If anything happened to the local plant, service ceased. Rates were high and service neither efficient nor adequate. The growth of these towns was being hampered because the development of any community today depends a great deal on reliable public utility service at reasonable rates.

"The Midland Utilities Co. was formed in the summer of 1923. It began to acquire these isolated companies and to build them into one interconnected system. Since that time the properties of 22 mainly isolated and unrelated companies have been merged into one strong company-the Northern Indiana Public Service Co. Electric transmission lines have been built interconnecting scores of towns. Pipe lines have been laid, through which gas now is supplied to many small towns, rural communities and farms, which otherwise would not have this service. New plants have been built and others enlarged. These improvements represent an additional investment of millions of dollars by the company that it may furnish better service to its customers.

"In addition to these great improvements

made in the physical facilities for furnishing service, we have reduced rates. The improvements resulted in reduced operating costs and we have passed these savings along to the company's customers. Since 1923 the Northern Indiana Public Service Co. and its constituent properties have introduced or changed rate tariffs resulting in substantial savings to its customers. All of these rate reductions have been made voluntarily by the company with the approval of the Public Service Commission of Indiana.

"During the period beginning July 1, 1923, and up to December 1, 1928, 77 existing tariffs have been reduced and 174 new tariffs have been authorized for the purpose of lowering the cost of service to the electric and gas customers of the company. This policy of reducing rates for both gas and electric service has resulted in an annual saving of \$1,295,441 to the customers of the company; that is to say, that if the customers of the company paid for gas and electric energy used during the year 1927 at the average rates existing in the year 1923, their combined bill would have been \$1,295,441 greater than actually paid during the year 1927.

"Of this great saving, the residential and commercial electric lighting customers benefited to the extent of \$299,147. The savings on gas service were distributed about equally between the regular gas customers, including residential cooking, house heating, and commercial customers, and the users of gas for industrial purposes. Of the \$545,412 reduction in the cost of gas service, regular customers benefited to the extent of \$272,551, and industrial users to the extent of \$272,861.

"The benefits to the customers in the shape of rate decreases have been greater than those that the stockholders of the company have received in the shape of increased earnings.

"It is our policy to render the very best service at the lowest possible rates. Lower rates mean that customers may use more gas and electricity for more purposes in their homes and places of business. As a result they get the benefit of these additional services and the business of a public utility company grows.

"Improvement in service to customers and substantial reductions in rates made in the territory served by the Northern Indiana Public Service Co., I believe, are a convincing answer to critics of the public utility industry who often claim that mergers and holding company control result in higher rates to consumers."

Other representatives of the company who addressed the meeting were S. E. Mulholland, vice-president, of Fort Wayne, Charles W. Chase, vice-president, of Gary, and T. J. Kelley, general superintendent, of Fort Wayne.

#### House Heating Is Advertised Nationally

Bryant Heater and Manufacturing Co. Will Continue National Program in 1929

NATIONAL advertising program of interest to the gas industry is that now being conducted by The Bryant Heater and Manufacturing Co., Cleveland, Ohio. This company's 1929 magazine advertising will be seen in the Saturday Evening Post, National Geographic, and House and Garden, with supplementary copy in Time and Asia.

Edward P. Bailey, president of the company, writes as follows concerning the program of advertising:

"During the past four years, the national gas heating advertising we have been doing has engendered the good-will and kindly feeling of the gas industry as a whole. That it is recognized and appreciated by those companies who are actively engaged in house heating promotion is attested by the many complimentary comments we receive from time to time.

"This is indeed most gratifying, for I hon-

estly believe that this advertising, on which much time, money and effort has been expended, has been a tremendous factor in creating consumer acceptance and establishing gas heating on a national basis. It is only with a thorough appreciation of gas heating's advantages on the part of the public, that we can hope for automatic gas heating to progress in keeping with its possibilities.

"This advertising is benefiting the gas industry, and the more it is used in local sales work, the greater will be its value."

The Bryant "pup" which appears in every advertisement is of exceptional interest to advertising men. Marsh K. Powers tells why in a recent issue of Advertising and Selling, in which he writes as follows:

"The Bryant pup, a perky young bulldog, first crept into a Bryant layout in August, 1925, when an agency artist sketched him in to add

(Continued on page 62)



Automatic Heating

Above is the Dec. 29th Saturday Evening Post Advertisement, and at the right is the January National Geographic magazine advertisement

#### A. W. Thompson Given Leave of Absence



A. W. Thompson

POLLOWING a special meeting of the Board of Directors of The United Gas Improvement Co., Philadelphia, Pa., early in December, the following statement was issued:

"Due to overwork in the service of the company, our president, Arthur W. Thompson, has been in impaired health for some months past. Though much better now, his present condition is

not such as to make it advisable for him to continue under the same strain of work in the immediate future. Accordingly, the Board has given Mr. Thompson a six months' leave of absence in the hope that at the end of that period be will be fully restored to health

he will be fully restored to health.

"The Board has further authorized the appointment of John E. Zimmermann as Chairman of the Executive Committee, with temporary full executive powers conferred upon him.

Mr. Zimmermann has agreed to accept such a temporary assignment of duty, upon condition that he is not committing himself, nor is the Company committing itself by reason of such appointment, to any permanent use of his services as an executive officer, he being unwilling to assume any such obligation."

# Report Shows Trend Toward Apartment Houses

A SURVEY conducted by the Department of Labor in 257 cities for the years 1921-27 shows a decided trend towards apartment house construction, according to a recent issue of *Domestic Commerce*, issued by the Bureau of Foreign and Domestic Commerce. The report continues as follows:

"In 1921, 58 per cent of the families provided for in all types of new buildings were to be housed in one-family dwellings, but in 1927 this percentage had fallen to 38.3 per cent. Apartments or multi-family dwellings had increased over the same period from 24.4 per cent of total new construction to 48.3 per cent. The trend has doubtless been hastened by the present lower average cost per family for multi-family dwellings than for one-family dwellings. In 1921 the average cost of private dwellings was \$3,972 as compared with \$4,019 per family for multi-family dwellings. In 1927, however, the average cost of one-family dwellings had increased to \$4,830, while multi-family dwellings had increased only to \$4,170."

#### Gas Age-Record Presents Gas Group Safety Trophy

THE trophy shown here was presented to The Southwestern Gas & Electric Co. as winner of the gas group of the public utilities section of the National Safety Council in the safety contests held by the Council covering the period March 1 to August 31.

Floyd W. Parsons, editorial director of Gas Age-Record, donator of the trophy, presented it at a luncheon held in New York City to Jay Alan Reid, Safety Director of the Southwestern Gas & Electric Co. This company is part of the Central and Southwest Utilities group and a subsidiary of the Middle West Utilities Co.

In this year's National Safety Council contest there were 113 units entered in the public utilities section, of which 25 were in the gas group. Outstanding facts in the excellent record made by the 113 units entered are given as follows:

1—113 units entered employed 71,572 persons who worked 98,904,070 man-hours.

2—1936 lost-time accidents reported.

3—Average frequency rate of 19.575 is 37

per cent lower than average (31.11) for twoyear period of entire section.

4—Persons employed to lost-time accidents = 37 to 1. Ratio for two years, entire section = 12 to 1. Contest ratio represents improvement of 208 per cent.

5-14 units completed contest without a lost-time accident.

6-56 units completed contest with a frequency rate below the average of 19.575.



Safety award

#### The Architect and the Small Gas Company

The Problem of Contact Is Somewhat Different Than That of the Large Company in a Big City

By H. R. STEPHENSON

Member, Architects' and Builders' Committee, Commercial Section;

Commercial Agent, Des Moines Gas Co., Des Moines, Iowa

In the smaller cities there has been perhaps a small amount of information passed on to the architect regarding modern gas equipment. In these cities you will find from one to twenty architects, sometimes supplemented by several "blue print" salesmen.

Where there are only one or two architectural firms, the situation is not difficult to handle. The contact is, in most cases, easily made and not difficult to follow up, but in the city of from 15 to 20 firms another problem arises from the gas man's viewpoint. His city is not large enough to maintain a special representative to call on architects, and it is usually left to the salesmen to call on the architect in his territory. This condition in most cases does not bring the desired results.

In one city that I have in mind, several of the best architectural firms have joined together and refer all piping and heating problems to a consulting engineer. These firms do the designing and the supervising of the majority of the better homes and buildings that are constructed and although one engineer makes the recommendations for piping, heating, etc., it is essential that the gas company have a contact with each individual firm in addition to the engineer. It is doubtful if a district representative or salesman can make a profitable contact, due to the fact that the salesman makes his living from the sale of appliances, and to the architect he is just one more salesman calling to take up his time.

One can readily appreciate, after considering the new and numerous materials and fitments that go into a modern home, the number of various manufacturer's representatives that call on architectural firms. The gas company's representative

that endeavors to make the contact between the architect and his company must be one who comes to the architect with information and assistance rather than with something to sell.

Architect contact is one of the problems of the gas company in the smaller city and it is the own individual problem of the sales manager or new business manager. He alone has to make this contact. He can pave the way between the architect and the architect's client, thereby building up a good will relation contact, which is most essential.

This architect contact should be maintained regularly, and new and up-to-date information supplied as soon as available. Personal delivery of information regarding the gas business is far more effective than through regular mailing channels where the ultimate file is the metal container under the table.

# Public Utility Courses Suggested for Schools

SAM A. BAKER, governor of Missouri, in a public address at Jefferson City recently, made the following interesting statement:

"My hobby is education because I know what it means. I believe the public school's curriculum should be so modified as to have a place in that curriculum for public utilities. I do not have to call it that but teach the children from the time they know anything to respect public utilities, and to have some knowledge of them.

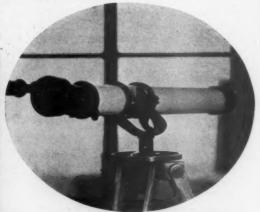
"There are still some of our great educational institutions that never undertake to teach anything about public utilities in the universities or colleges. We have the School of Journalism, we have the School of Engineering, we have the School of Pharmacy, we have the Medical School, and all these different kinds of schools, and so we should, right alongside with those activities, teach the benefit of public utilities."



#### Rochester Prevents Smoke

Rochester, N. Y., is actively combatting the smoke evil. It is getting harder than ever to get pictures such as the one shown at the left. In the center at the left is a picture of a building having its face scrubbed. The dark portion of the building shows vividly the effect of smoke





Immediately above is the telescope to give the exact location of Rochester stacks. More than 500 stacks have been plotted and may be identified by the smoke inspection department as easily as tuning in a radio station

Evidences of the effect of Rochester's campaign are shown in the photograph at the bottom of the page





In Rochester, N. Y., cooperation between the city and industry for cleaning the atmosphere is producing pleasing results.

#### Science Finds It a Crime to Burn Soft Coal So Says the Philadelphia, Pa., RECORD Editorially

A LEADING editorial in the Nov. 29 issue of the Philadelphia, Pa., Record, is of such interest and value that it is reproduced here in its entirety without further comment.

Scene, a Courtroom. Time, say 1978. The jury has just found a defendant guilty, and he stands up to be sentenced.

The JUDGE: You have been convicted—justly, the Court believes—of a grave offense. The evidence is conclusive that by devious means you procured from a bituminous bootlegger a ton of coal and burned it to heat your home. The Court gives due weight to your previous good character and to the fact that you were following a custom once widespread and lawful. But it is necessary to make an example of you, as a deterrent of such reckless crimes against the law, against society, against nature itself. The sentence is that you shall pay a fine of \$1,000 and be imprisoned for one year.

Fanciful as this picture is, it is not wholly fantastic. The use of soft coal as fuel is already denounced by competent authorities as an economic crime, and in a more enlightened age it may be an indictable and punishable crime. Five years ago the president of the British Institute of Mining Engineers declared:

"A very few years may see it a penal offense to burn raw coal. The popular view is that coal is something to be burned. The scientific view is just the opposite—that coal is too valuable to be burned; that to burn it is to squander it."

What he meant was illustrated in impressive fashion last week at the Carnegie Institute of Technology, Pittsburgh, in the deliberations of the Second International Con-

ference on Bituminous Coal. The subject was important enough to assemble 2,000 eminent chemists, engineers and technicians, representing no less than 20 nations.

The substance they were discussing is in its natural state a cumbersome compound of hydrocarbons ballasted with humidity and elements which combustion turns into worthless ash. While extremely useful as a fuel for the generation of heat and power and the production of illuminating gas—it is, indeed, an essential in the maintenance of industry—all experts agree that it is the most grievously abused of the treasures of the earth.

To burn it in furnaces and locomotives and steam plants, they say, is about as ghastly a bit of folly as would be the stoking of the fires with money. To them the smoking factory chimney is a symbol not of wealth-producing progress, but of criminal ignorance and extravagance.

The reason is that this commonplace and abundant commodity is actually a raw material capable of being transformed into hundreds of substances more useful and more valuable. Modern research has shown not only more efficient methods of using soft coal as fuel, but how to extract from it basic ingredients of valuable aid to existence.

Germany manufactures gas from coal at the mines and pipes it as far as 450 miles, saving freight charges. Motor engines that run on pulverized coal have been devised. By processes of distillation and liquefaction German industrialists are producing 40,000 tons of synthetic gasoline annually, and expect to market 250,000 tons next year. From by-products recovered the coal alchemists make drugs, perfumes, antiseptics, medicines, flavors, colors, explosives and thousands of other commodities

(Continued on page 60)

#### Largest Gas Holder Dedicated to Gas and Aviation Services



The world's largest gas holder

CHICAGO'S newest and the world's largest gas holder (with a capacity of 20,000,000 cu.ft.), serving also as a beacon to the Municipal Airport, was put into service December 19, at Seventy-third Street and Central Park Avenue, by Samuel Insull, president of The Peoples Gas Light & Coke Company. Leading figures both in aviation and in the gas industry participated in the occasion.

Mr. Insull also placed in operation the machinery which pumps gas from the new holder into the city's mains at the rate of 25,000 cu.ft. a minute, or 36,000,000 cu.ft. per day, and unveiled a bronze tablet dedicating the holder to the service of the people of Chicago.

The holder is 416 feet high, and is topped with a 92 foot red-light tower painted, lighted, and marked as an aviation landmark.

Representatives of the aviation and gas industries went to the South Shore Country Club for luncheon. Participants in the formalities there were: Mr. Insull, Mayor Thompson, Alexander Forward, managing director of the American Gas Assocation; Howell Fisher, president of the Bartlett Hayward Company, and George B. Foster, chairman of the Association of Commerce Committee on Aviation.

Major Forward spoke as follows at the dedication:

"On an occasion I stood with an American acquaintance gazing on the Castle St. Angelo—tomb of Emperor Hadrian in Rome—and he delivered himself of the emotion surcharging his breast by declaiming 'What a dandy setup for a gas holder.'

"I bring you today the congratulations of the organized gas industry of North America upon



The top of the holder

the managerial, financial and engineering achievement embodied in planning, constructing and putting into operation this great holder in cooperation with the authorities of aviation destined to be another of the country's great industries. Colonel Fogg, the president of the American Gas Association, sends his sincere regrets that important business engagements prevent his attendance and presents his felicitations and good wishes.

"The group of companies of which Mr. Insull is head is the largest producer and distributor of manufactured gas on the Continent. His able organization has been in the forefront of the industry's advancement since his connection with it began. That organization has taken a leading position in making practical application of scientific theories of rate making. It is the pioneer in developing many new uses for our

(Continued on page 000)

#### The New Competition-How to Meet It

A Comprehensive and Inclusive Summary of the Merchandising Future of the Gas Industry

By HERBERT B. DORAU

Assistant Professor of Economics, Northwestern University School of Commerce: Research
Associate, The Institute for Research in Land Economics and Public Utilities

CELLING is a mental process consisting of the creation of an attitude of mind on the part of the buyer which will lead him to purchase what the salesman wishes to sell. How many people can be persuaded, by even the most gifted salesmen, to buy gas-as gas? Modern salesmanship recognized that it is not the commodity which is to be sold but the service or satisfaction which is expected from it. Gas service cannot be sold except in terms of the appliances which make gas serviceable. Gas and gas appliances are complementary goods; one is of little use without the other. This relation is fundamental, for the gas appliance in a very real sense is part of the gas plant necessary to make gas useful to the customer. Important as the appliance is to the industry and its future from every point of view, yet the gas industry controls neither their design, manufacture, or sale. Through the Testing Laboratory minimum standards are set up and certainly an industry enlightened as to its possibilities and limitations will cooperate most fully in this program.

Gas appliances may be thought of as outlets for the sale of gas. Acquaintance with other industries and their merchandising efforts makes one aware of the importance attached to the number and quality of "outlets" for the commodity or service sold. The intense competition for sales outlets is an important aspect of the present era of intense merchandising competition.

If the gas utility fully appreciates that it is first of all in business to sell gas and only secondarily in the appliance business, it will not permit appliance mer-

chandising profits to stand in the way of an increased load and a larger return from the sale, for gas appliances must be sold in quantities and be of good quality so that outlets for the future sale of gas will be maintained. It will not even insist on necessarily being directly in the appliance merchandising business if it can be assured that non-utility merchandisers can and will continue through all kinds of conditions more economically and effectively to sell appliances and achieve the real aim of the industry which is to develop and protect the market for gas. The sale of appliances, as previously pointed out, is a joint cost of producing the new load. To underwrite the future of the industry and to obtain the maximum load of the highest average use at a fair profit, diversified use of gas through quality appliances is necessary. The expense of placing more and better gas-consuming appliances on the line must follow the general rule of joint expense allocation, 'what the traffic will bear, but no more.' The principles of pricing gas and gas appliances are the same.

It should occur to everyone at once that whether appliances are merchandised at a direct profit or at a loss depends as much on what costs are imputed to appliance merchandising as on the price at which they are offered.

The utility may thus find that it loses less or makes more, whichever be the case, by not allocating such a total of costs as will reduce the business done below the economical volume. This all strikes very close to the heart of the problem which many utilities have had to face when non-utility retailers engage in cutting prices and in distributing unacceptably low quality appliances.

Part 2 of paper presented at A. G. A. convention, Atlantic City, Oct., 1928.

There is ultimately only one level from which the real profitableness of appliance merchandising can be measured, and that is to be found in the quality and cost of gas service to the customer. No cost level built up by "allocations" or any other device can be used. A higher price might have brought larger returns, a lower price might have brought a sufficiently larger volume of business also to bring larger returns, or, again, pricing according to such imposed costs might have resulted in a deficit, while a lower price might have brought revenue and expense into balance or at least decreased the amount of the nominal loss. If the utility is confirmed in the conviction that it must engage in appliance merchandising, such as decreases in deficits, when measured from levels as arbitrary as those determined by allocation of joint costs are profits and not losses at all, and furthermore, such exactly are the methods of pricing used by the aggressive and successful non-utility merchandisers. When they price goods of different sorts with different mark-ups, they are always striving to find the price which will call forth that volume of business, which multiplied by the margin of profit obtainable at that price, will net the largest return.

The whole idea of merchandising appliances at a profit is fundamentally in conflict with the idea of promoting gas consumption. One idea or the other must prevail. Ultimately and finally, very few gas utilities are merchandising appliances for the direct and immediate profit to be made. One purpose or the other must prevail, yet that does not mean a utility should not make what it can; should not make real efforts to take the lesser losses after it has reached the point where concessions in the appliance end of the business no longer bring compensating returns or help avoid larger losses in the principal line of business. In no case would a utility merchandiser seem justified in initiating price-cutting for the direct and immediate results in the way of larger sales and profits on appliances.

Neither does the recognition of these principles of competitive business and their adaptation to the gas industry justify absurd references to giving away appliances. In the long run and on the average the customer pays for gas and gas appliances. Sometimes it is better business expediency to carry more of the common and humanly unallotable costs on one and then on the other. The prescription is usually in proportion to the seriousness of the situation. Let us hope that industry never allows the public to become so unaware of the usefulness of gas that such an expedient need be considered. Certainly none of the foregoing can be understood to imply that a gas utility can not or may not profit on its merchandise sales directly. It only suggests that appliance sales profits should not be allowed to stand in the way of gas sales profits, that a 50 cent gain on appliance sales should not be accepted or allowed to interfere with a dollar gain in gas sales. A large number of gas companies are ready and willing to service their outlets in the form of customer's appliances gratuitously even when purchased from other dealers vet they fail to see the fact that the same principle holds with respect to the initial sale of appliances. If it pays to spend money to maintain outlets for the product, those having faith in the future of the industry should be equally willing to spend money and energy in developing new outlets by the method of volume sales of quality gas appliances.

#### SHALL WE MERCHANDISE?

There are those in the gas industry who, finding themselves in a keenly competitive market as far as selling appliances is concerned and recognizing their deficiencies as aggressive sales organizations, feel that the gas utility might as well withdraw from appliance merchandising altogether. Organizations are already in existence, which know how and are willing to go out and do a volume business. Some organization of this type may do the appliance merchandising of the future.

and if this should come to pass it would be very unfortunate for the gas utility but it may at that be the lesser of two evils, the lesser of losses. It is hoped that should direct or large scale selling invade the gas industries as it already has others, the effort will be cooperative at least to the extent that the gas utility can control the quality of the goods sold.

To the non-utility merchant gas appliances are but so many articles of commerce which he will sell while the demand is good and as long as he can make a profit. He is obviously not interested in the sale of gas. He is a fair-weather friend whose help in distributing quality outlets should be recognized and appreciated. Indeed the suggestion for cooperation with non-utility dealers is entirely in place. It must however be definite and will of necessity be limited in scope. But if it does not give the utility some control over the quality of appliances sold it may harm as much as aid. Furthermore the general competition among producers of all goods for outlets in this period of generalized



The New England Gas Ass'n uses regional cooperative advertising to increase gas sales



The program of advertising conducted by the New England Gas Ass'n is one answer to the new competition

competition has developed such an overabundance of outlets that the many individual units find it difficult to make a fair margin of profit. Such conditions invariably lead to price cutting and the offering of poorer and poorer quality. It has not been demonstrated that there are not too many in this business even now. so that the margin of profit does not provide a basis for sound merchandising policies. It is this over-supply of distributors induced by the amount of distressed merchandise offered by marginal producers that has turned many a satisfactory merchandising profit into a red record of loss for utility companies during the last two years. Cooperation with non-utility dealers should be selective of those fitted and willing to conduct their business along the lines which a gas utility itself would deem desirable.

On the other hand, the non-utility dealer can not reasonably be expected to fight the battle of gas in the results of which he has no particular interest. In contrast, to the utility the appliances are













The Blue Star Home is one way of attracting attention to the many uses for gas in the modern home. Prof. Dorau talks of the new competition, and the lesson he brings out points to a more universal use of such modern merchandising methods as Blue Star model home demonstrations in the future

the indispensable avenues for the rendition of its service. They are its sales outlets and its final responsibility. Only those who have something at stake will fight long and sacrifice much. The gas utility has everything at stake in appliance merchandising. It should be in every community the most significant distributor and set the standards which others will be encouraged to follow, but if it can not or will not perform this function, it will be carried on under other auspices, and our concern is, how well?

Because the gas industry is not very sales conscious and because those in places of authority are so largely trained and interested in other aspects of the business, it might not be amiss to experiment at least with some methods which would demonstrate what could be done by aggressive and scientifically organized sales campaigns. Cooperative efforts in which quality appliance manufacturers who are used to thinking in terms of competitive marketing might prove inspirational and while not to be thought of as a permanent feature might well provide the needed impetus and revival which many a company needs. Here again however, there is danger, for although the appliance manufacturer is keenly interested in the future of the gas industry, yet he does not make his profit out of the sale of gas but out of the sale of appliances. The gas utility can not expect him to bear the cost of making and keeping its gas outlets. Neither can the manufacturer who finds or believes he will find the market for gas appliances less remunerative in the future be blamed for withdrawing or reducing his efforts. The gas appliance manufacturer has during the entire history of the gas industry carried forward and done some of the most effective "pinch hitting" but it would be infantile for the gas industry to lean to any much greater extent than it does on this willing and able aid. The appliance manufacturers' aid is useful and appreciated but it should not be too much relied upon. Ultimately the gas industry must fight its own way, and the competition it will meet in the future will demand all the resources of the industry and its aids and allies combined.

#### WE MUST LOOK AHEAD

The new competition, in its all pervasiveness, its intensivity and the swiftness with which it changes the scene and realigns business forces, can not be successfully contended with by looking only to the immediate causes or even by the most careful and energetic management of the internal affairs of a business such as we have discussed. Those who are organized and informed only to meet the difficulties of today are like those who will only repair the roof where and when it leaks and like the traditional keeper who looks after the horse is stolen. The business strategy of the new competition consists in anticipating trends and striking at underlying causes. "Business preparedness" must be the slogan of those industries which expect to meet this everchanging attack in an effective manner. Business preparedness implies having at hand at the desired time the knowledge and the technique needed to cope with a new industrial or business circumstance. Research in the business economics of the industry is the method by which the basic facts and circumstances of the industry can be discovered. It is the only way in which the long time trends and those secondary and underlying causes of the more immediate conditions, of which most are aware, can be detected. Business preparedness also demands that the executive and managerial staff be qualified for analytical as well as the more purely directive functions, but the capacity to evaluate, in fact even to recognize or to appreciate the more fundamental economic trends which are shaping the future of the industry is not innate or even readily acquired. It is beyond the capacity of anyone to discover the necessary facts alone, for today it's one thing and tomorrow Single units of the industry another. could only under rare circumstances undertake such analyses, and why should



Another fine example of cooperative advertising in New England

not such fundamental economic research be carried on cooperatively, since the benefits would accrue to the entire industry?

The avidity with which organized industry has seized upon research in the field of business economics as a tool for forecasting the future, as insurance against sudden diversion of purchasing power to directly or indirectly competing products or services and as the only method by which the fullest possibilities of the industry could be realized, is one of the most surprising of post-war developments.

The challenging problems of the gas industry today are business and economic in character rather than technical. To meet these problems successfully it must seek out economic fact as it has sought out technical fact, seek men trained in business as it has in the past sought men trained in engineering. It must proceed also to secure as much outside interest in its problems as it can through cooperation and assistance when these promise useful results. In promoting the organized and large scale study of the business eco-

nomics of the gas industry, the benefits of securing the efforts of men and organizations not too close to the industry can be freely recommended, for only by such cooperation can a fresh point of view be secured and one without the presuppositions and assumptions which it is only natural that everyone have about the things he works with intimately and daily.

With all the consolidations, combinations, and mergers in business and the rapid integration of industry, it might have been expected that there would follow an era of less drastic competition. Instead, competition has risen to new levels of intensity, consolidation and integration having merely afforded the strength of union for the new competition. This new competition arises out of the new mode of life and this is all pervasive. Although the gas industry has in its history met and adjusted itself to direct competition, this indirect pressure upon the habits of people which constitutes the very roots and basis of the demand for the industry's product is an attack of an entirely different character and at points where the industry is frankly weak. The gas industry is entering the most competitive era in its entire history. In recognition of this fact the industry must become sales minded. Everywhere in business the place given and importance attached to merchandising increases with the degree and intensity of competition experienced. The technique of merchandising, i.e. marketing, advertising, and selling, have been developed to such an extent by industries long experienced in the ways of competition that goods and services not promoted according to the best traditions of the art are losing out. Inherent merit in a product no longer assures success to the producer. Indeed it seems to be true that it is the best merchandized commodity or service which wins out. The gas industry is rather poorly equipped to meet the new competition, principally because of its attitude of mind on certain merchandising policies.

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#### TIDE OF MEN AND AFFAIRS



C. S. Stackpole

CHESTERS.STACK-POLE is now assistant manager of the merchandising department of the Consolidated Gas, Electric Light and Power Co. of Baltimore, Md. Previous to joining the Baltimore company, Mr. Stackpole was sales manager of the Richmond Division of the Virginia Electric Power Co., a Stone and Webster subsidiary.

Mr. Stackpole joined the Stone and Webster organization after graduation from Brown University in 1922. He held various merchandising and sales positions in different localities in New England, and then was transferred to Virginia.

R. STRAIGHT, vice-president and general manager, The Empire Companies, Bartlesville, Okla., has been elected a member of the executive committee of the Mid-Continent Oil and Gas Association.

R. E. BRIGHAM, chief clerk, gas production department, Cities Service Co., Bartlesville, Okla., has been promoted to the Wichita district of the company.

HARRY L. SWICEGOOD, supervisor of the sales floor of the Fall River Gas Works Company, Fall River, Mass., was transferred November 13 to the Electric Light & Power Company of Abington and Rockland (Mass.) where he became assistant to the engineer. He will be located at North Abington.

H. J. STRUTH, for the past year editor of Natural Gas magazine, the official publication of the Natural Gas Department of the American Gas Association, is now connected with the Gulf Publishing Co. of Houston, Texas.

W. ALTON JONES, first vice-president of the Cities Service Co., of New York, N. Y., has been made a vice-president and director of the Public Service Co. of Colorado.

J. A. MESSENGER has been appointed manager of the gas distribution department of The United Engineers and Contractors, Inc., to fill the vacancy caused by the recent resignation of A. M. Boyd. Mr. Messenger has been an employee of the U. G. I. or its subsidiaries since his graduation from Stevens Institute of Technology in 1910.

HOWARD A. LOCKHART, formerly chief chemist of the Fall River Gas Works Company, Fall River, Mass., has taken a position with the Lowell Gas Light Company, Lowell, Mass., as industrial service engineer. Both the Lowell and Fall River companies are under the executive management of Stone & Webster, Inc.

L. W. SELTZER, engineer, Consumers Gas Co., Reading Pa., is now on the staff of J. A. Perry, manager of the gas and electric operations of The United Gas Improvement Co., Philadelphia, Pa.

J. HENDERSON, who has been associated with H. C. Hopson, has opened an office at 105 Broadway, New York, N. Y., and is specializing in finances and public utility problems.

WALTER F. NORTON has been appointed manager of the Nashua district of the Public Service Co. of New Hampshire to succeed the late George L. Sadler. Mr. Norton has been superintendent of the company's gas department since 1897.

THE board of directors of the Standard Gas Equipment Corp. has elected W. Frank Roberts as chairman of the board, following the resignation of R. Curzon Hoffman, Jr., former president. In this capacity Mr. Roberts will be the active chief executive officer of the company.

Mr. Roberts was for ten years general manager of the Baltimore operations of the Bethlehem Steel Corp., resigning that position to assume charge of his new office. During the ten years of his direction of the affairs of the Baltimore operations of the Bethlehem Steel Corp., Mr. Roberts carried out an extensive building program which the corporation had mapped out for the Baltimore district.

Mr. Roberts is regarded as an authority on the manufacture of steel and has won special honors and distinction for the masterful manner in which he supervised the remodeling and enlargement of the Sparrows Point Plant.

H. D. SCHALL, who recently resigned as vice-president in charge of sales of the Standard Gas Equipment Corporation, has been appointed vice-president and director of sales of the Regent Stove Company of Detroit.

S IDNEY MASON, president of the Welsbach Co. of New England, has announced that the gas part of the firm's business has been acquired by the Welsbach Water Heater Co. of New England. This latter company is under the management of Theo. H. Piser, with the following associates: S. B. Palmer, Chas. S. Goddard, and Edw. A. Colgan. The address is 113 Purchase St., Boston, Mass.

## 124 Attend Gas School at Purdue University



Lecturing and demonstrating at the Purdue gas school

NE hundred and twenty-four men, representing 55 companies and utilities, attended the fourth annual Gas School, held at Purdue University, Lafayette, Ind., Nov. 14, 15, and 16, under the direction of the Engineering Extension Department and the School of Chemical Engineering, with the Indiana Gas Association and the American Gas Association cooperating.

The Gas School this year was an outgrowth of the Gas Meter School which has been offered to the Indiana utilities by the Engineering Extension Department of the University during the past three years. This year's program was broadened to include subjects of interest to managers, superintendents, engineers, and metermen. Meetings were held in the Gas Engineering Experimental Laboratory recently equipped to carry on research problems of value to the gas industry.

The program was arranged and directed by W. A. Knapp, Professor in Charge, Engineering Extension Department, and R. B. Leckie, Professor of the Gas Engineering, School of Chemical Engineering, Purdue University, assisted by a Gas School Committee of the Indiana Gas Association.

Among those who lectured were: A. J. Barrett, American Meter Co., Chicago, Ill.; George A. Lane, The Peoples Gas Light and Coke Co., Chicago, Ill., with William Rosenia, also of the

Peoples Co., and Frank Sanger, American Meter Co., assisting; E. C. Falvey, Sprague Meter Co., Davenport, Ia., with T. H. Gronberg assisting; A. D. MacLean, Pittsburgh Equitable Meter Co., Pittsburgh, Pa.; T. J. Kelley, Northern Indiana Public Service Co., Fort Wayne, Ind.; R. B. Leckie, Purdue University; H. B. Johns, The Peoples Gas Light and Coke Co., Chicago, Ill.; M. E. Benesh, The Peoples Gas Light and Coke Co., Chicago, Ill.; L. A. Kirch, Midland Utilities Co., Chicago, Ill.; and F. E. Sellman, Servel, Inc., New York, N. Y.

#### Martin Insull Speaks at Advertising Luncheon

IN an address before the Advertising Club of New York recently, Martin Insull, of Chicago, Ill., stated that he was a believer in business publicity, and that nothing is more necessary than a well-informed public.

The utilities have tried to tell the public, the employees, and others the story of the fundamental economics of the business, according to Mr. Insull. It is of benefit for the public to know that the utility industry is a large one, that it is a stabilizer of business, and an aid to employment, he stated.

In proving the point that the utilities must have active, favorable public opinion, the speaker said that the public service industries require two and one-half billions of dollars of new money each year, and that this money comes only from a friendly public, not one that is antagonistic.

In the money markets the utilities compete with all industries, Mr. Insull said. The credit standing must be high, and the rates must therefore be equitable. He emphasized the great importance rates have in the financing of utilities, and said that the foundation of the public utilities is a good financial standing and public favor.

Among those present at the luncheon meeting were N. F. Brady, George B. Cortelyou, M. S. Sloan, Oscar H. Fogg, John W. Lieb, Judge Wm. L. Ransom, and Frank L. Blanchard.



The group at the recent gas school held at Purdue University

## Affiliated Association Activities

New England Gas Association



I. T. Haddock

A BOUT 160 attended the annual meeting of the Operating Division held in New Haven, Conn., Dec. 7 and 8. In the course of his address, Chairman H. Vittinghoff pointed out that today long distance transmission of gas exceeds that of electricity in the value of the product, that coke had not only a most important position in the technique of gas manufac-

ture, but that it also also occupies a large place in the total fuel uses of the country both domestic and industrial, and an even larger place potentially. Coke requires a definite and well-defined process of production to deliver its most satisfactory qualities. As a smokeless fuel the future of coke is already commencing to assume definitely larger proportions, and bankers are ready to put a great deal of money into the financing of the development of coke.

In a paper "The Economics of Coke Ovens," Angus MacArthur, vice-president of the Connecticut Coke Co., treated in a masterly manner conditions surrounding the production and sale of coke. Benjamin R. Hasselman, chief chemist of the Connecticut Coke Co., presented a paper on the subject of coke from the standpoint of qualitative analysis in the manufacture and the necessity of proper grading and testing as related to handling in both storage and transportation and in gas manufacture.

The following questions were covered by active discussion—1. How are the proper temperatures in a water gas set determined?; 2. Preparation of holders for painting with type of paint to be used for best protection; 3. What rate of consumption per customer do you use in figuring size of main?; 4. Would a change in specific gravity be noticed at the burner?—Between what limits would this occur?; 5. What annual program is followed in the maintenance of mains and services to keep unaccounted-forgas at a minimum?

The following officers were elected: Chairman, I. T. Haddock; vice-chairman, A. S. Hall; secretary-treasurer, H. G. Taylor; governors, F. M. Goodwin and Angus MacArthur.

Most of the members inspected the plant of the Connecticut Coke Co., under the guidance of Messrs. Hasselman and MacArthur, and were entertained at a luncheon as joint guests of the Connecticut Coke Co., and the New Haven Gas Light Co. Golf was provided for those who wished to take advantage of it and a sight-seeing tour about Yale University and the historic parts of New Haven was indulged in by some of the ladies.

#### Southern Gas Association

THE annual convention of the Southern Gas Association will be held in Memphis, Tennessee, April 23, 24 and 25, 1929.

Ohio Gas and Oil Men's Association
SECRETARY WM. H. THOMPSON of the
Ohio Gas and Oil Men's Association has
announced that the annual convention of his
Association will be held in Columbus, Ohio,
March 5 and 6, 1929.

Virginia Public Utilities Association



A. W. Higgins

THE annual convention of this association, held in Roanoke, Va., Nov. 21 and 22, had its largest attendance on record, there being more than 400 present. The program was replete with such outstanding features as an address on "The Relations Between the Public," by William Meade Fletcher of the Virginia State Corpora-

tion Commission; "Some Investment Banking Views of the Public Utility Industry," by Henry R. Hayes, vice-president of Stone & Webster and Blodget, Inc., of New York; a description of the work of the State Conservation and Development Commission was most interestingly presented by William E. Carson, chairman of the commission; "Fundamental Rate Basis," by N. M. Argabrite, vice-president of the American Gas and Electric Co.; "Whither Public Utilities?" by Alexander Forward, managing director of the American Gas Association.

Both the president, J. W. Hancock, of Roanoke, and the secretary, A. B. Tunis, of Richmond, were congratulated on the success of the convention.

The following officers were elected for the ensuing year: President, A. W. Higgins, of Charlottesville; vice-presidents, C. B. Short, Roanoke; T. Justin Moore, Richmond, and Herbert Markle, Bluefield; secretary, Allyn B. Tunis, Richmond; treasurer, A. H. Herrmann, Richmond

At the annual dinner and dance Colonel James P. Woods, former member of Congress, presided as toastmaster, and Junius P. Fishburn, Jr., president of the Virginia State Chamber of Commerce, was a speaker on the subject of "Industrial Development in the New Virginia." Entertainment was provided by the Appalachian Electric Power Company minstrels.

#### Illinois Gas Association



G. W. Schwaner

PRESIDENT J. A. STRAWN announces the appointment of George Schwaner, of Springfield, Ill., formerly collector of internal revenue of the Springfield district, as secretary-treasurer of the Illinois Gas Association, to succeed R. V. Prather, deceased.

The Springfield, Ill., Register, commented as follows on the appointment:

"In selecting George W. Schwaner, of Springfield, as executive secretary of the Illinois Gas Association, the Illinois Electric association and the Illinois Electric Railways association, those great organizations have chosen a man well qualified for this difficult position. He is a worthy successor of the late Robert V. Prather through whose genius these associations were co-ordinated. Springfield congratulates Secretary Schwaner and the triumvirate of associations which he now represents, and is particularly pleased that this city remains the headquarters and that these associations are to again hold their convention in Springfield. It is a high-power group in personality, pep and purpose, and Springfield welcomes them all with super-power enthusiasm."

The following is copied from "The History of Illinois and Her People" by Professor George W. Smith, M. A., head department of history, State Teachers College, Carbondale, Ill., 1927.

"George W. Schwaner, Internal Revenue Collector for the 8th District of Illinois, is one of the men of solid worth at Springfield and one who has had a long and varied experience in business and public life.

"In 1910 he became Chief Deputy County Treasurer, serving until 1918, then was elected County Treasurer for a term of four years, after which he engaged in the business of public accounting, but discontinued it when in 1921 he was appointed by President Harding as Collector of Internal Revenue for the 8th District of Illinois, serving six years in that position.

"During this period he was also engaged in the business of mining and selling coal, operating a coal mine near Springfield. A conscientious, honorable man of high principles, he is well fitted for his present responsible position, and in it is rendering a most effective service."

#### Wisconsin Utilities Association

ANOTHER interesting contest for women of utility companies in Wisconsin is being sponsored by the Wisconsin Utilities Association. The contest opened May 1, 1928, and will continue for one year when, shortly thereafter, the committee of judges consisting of Miss Estelle Rowe, assistant secretary, Railroad Commission of Wisconsin, Miss May S. Fletemeyer, Northern Indiana Public Service Co., Hammond, Ind., and A. F. Herwig, director, Wisconsin Public Utility Information Bureau, Milwaukee, will announce the awards.

The contest covers the programs presented in the various communities by the girls' organizations in the company offices in each unit. The girls' organization in each instance is to keep a record of programs and attendance including such other information as is necessary to determine which group has carried out the most constructive and useful program during the term of the contest. The awards, consisting of \$50 first prize, \$25 second prize and \$10 for third prize, are to be given to those utility women's clubs which show the greatest progress along the lines indicated below.

- 1. The program of activities adopted and carried out by the individual club or organization
  - (a) A general plan of programs for the entire year with a definite objective.
  - (b) Timeliness and variety of subjects discussed.
  - (c) A large proportion of the membership participating in the programs and other activities.
  - (d) A definite plan of organization and procedure.
- The attendance in proportion to the number of women in the club or group.
  - (a) Consideration will be given to the difficulties encountered when the unit includes a number of small offices scattered over considerable territory.
  - (b) Where the number of women employees is very large and distances from the homes to the meeting place are long it is understood that only those women who can attend frequently will join the organization. In such a case the total number of women employees will not be the sole basis for attendance credit.
- 3. The activity of the individual members in civic affairs in their particular localities.
  - (a) Home service workers whose regular duties include talks to cooking classes

and other groups or Commercial Department girls who regularly demonstrate equipment will not earn extra credit in this contest by doing this work. Participation by girls from other departments in large activities of this kind will count.

(b) Public speaking work in general will receive credit.

(c) Safety demonstrations by individuals or drill teams will count.

(d) Active participation in church, lodge, association, club or civic organizations especially by those holding important offices or serving actively on important committees will be credited.

A report will be made at the close of the contest by the officers of the club setting forth the claims of the group for the cash prize awards. This report must be approved by a company executive officer and then submitted to the committee of judges.

In order to make the contest more interesting the Women's Committee, since their annual meeting in September, has been issuing a monthly circular or bulletin to stimulate enthusiasm.

The period of the contest is now half over and gratifying earnestness and enthusiasm is being shown by the various units.

#### Pennsylvania Gas Association

THE mid-year meeting of this association was held December 11, 1928, at Harrisburg, Pa., with the largest registration on record, 171. President Mark Pendleton, of York, Pa., introduced Mayor G. A. Hoverter of Harrisburg, who briefly welcomed the convention to the city.

Among the interesting business matters disposed of were some proposed changes in the Constitution. These were voted upon by the entire membership and among them was the proposed addition that the Council shall have power to appoint and assign duties to a Managing Director and a Solicitor. The vote was overwhelmingly in favor; and in explanation of these requirements, it was mentioned that the industry was to have the Pennsylvania Gas Association function more along the lines of the American Gas Association.

Another very interesting and significant report made for the consideration of the members present was a proposed agreement between the Sanitary Water Board of the Commonwealth of Pennsylvania and companies operating manufactured gas works within the Commonwealth regarding the installation and operation of equipment and apparatus for the elimination or substantial treatment of gas plant wastes so as to prevent harm to public water supplies.

Mr. Pendleton in his presidential address stressed the need for the segregation of gas sales and pointed out in connection with the York Gas Co. that 1927 showed an increase over 1926, and 11 months of 1928 showed an increase over 1927 in domestic gas sales. A goal has been set up of 100 cu.ft. additional sales per customer per month. He further stated that such studies indicate that 50 per cent of domestic gas range sales are replacements.

A. M. Wiley, sales manager, Pennsylvania Gas and Electric Co., York, described the interesting experiences of his company in selling merchandise from auto truck displays, particularly in connection with extensions to suburban territories furnished gas by high pressure. These districts have special rates which contain many of the elements of the fixed charges, but in spite of this, very successful selling was accomplished.

Home service lectures and an exchange campaign for oil ranges were some of the methods employed, the exchanged equipment being taken to far distant country points and auctioned. Mr. Wiley stated that the salesmen had full authority in making offers for the exchanged equipment and the result was that they largely "dickered" or "horse traded."

John C. Smith, Reading, Pa., and J. Ward Crankshaw, Allentown, Pa., took an active part in the discussion of this paper and compared the practice of their companies with that of the York organization, making a live and interesting story.

"The Trend in Gas Manufacture" was presented by A. Gordon King, service engineer, American Gas Association. The speaker reviewed history, analyzed some of the statistics of the industry, and abstracted recent A. G. A. convention papers which dealt with new processes. He also considered the future of the industry. Mr. King's conclusion was that the production man should borrow the spectacles of the sales force and see as through their eyes some of the economic factors faced by the sales departments. The paper was well received and ably discussed.

An excellent luncheon next was served in Penn Harris Hotel with music and vaudeville numbers as entertainment. The chief speaker was Dr. Fred A. Godcharles, director of the State Library and Museum, who delved into the history and orgin of fire and compared this with the service rendered by the gas industry today. Brief remarks were also made by J. B. Jones, Bridgeton, N. J., and H. A. Stockton, president of the New Jersey Association.

Howard Williams described the new A. G. A. course in Domestic Gas Salesmanship.

At the afternoon session unaccounted for gas and public relations were subjects under consideration. Such well-known Pennsylvania utility men as J. F. Jones, Kingston, H. M. Squier, Scranton, George B. Bains, 3rd, Harrisburg, Andrew S. Morgan, Allentown, A. B. Millar, Pennsylvania Electric Ass'n, Frank P. Duggan, Lewistown, and Herbert H. Ganser, Norristown, took part. There is no question but that the meeting was one of the most successful and most largely attended.

## Chairman Meals Congratulates Wrinkle Winners

SAMUEL W. MEALS, chairman of the Natural Gas Department of the A. G. A. has expressed the interest of the entire natural gas industry in the results of the recently conducted Wrinkle Contest of the Department in the following letter which was sent to all prize winners. The names of the prize winners, and the wrinkles they submitted, were given in the December issue of the MONTHLY.

Mr. Meals' letter is as follows:

"I am pleased to send you herewith the American Gas Association check for \$25. This represents your financial reward for submitting one of the prize winning wrinkles.

"The check itself is but a partial recognition from the Association for the good work which you have done. I am sure that the natural gas industry, as a whole, is very grateful to you for making your ideas available to the industry.

"The submission of a wrinkle, and particularly of a prize-winning wrinkle, indicates that you have applied original thought to your work, and your action in making the idea available to all gas men is highly commended and appreciated.

"Please permit me to offer my personal congratulations and to hope that you will continue to send your wrinkle ideas to the Natural Gas Department of the American Gas Association."

#### Correlating Research

(Continued from page 15)

together and so extend our knowledge, whereas the results of a great deal of effort at research are now lost.

At the last annual meeting of the Association, a directory of the research activity and investigations of universities and other institutions and organizations was published. It is the hope of the Association to publish a more complete directory of such activities in the near future.

THE sentence quoted below is taken from a letter received from E. R. Guion, an appliance salesman for the Pacific Gas and

Electric Co., located at Eureka, Calif.:

"Will you kindly send me a copy of your magazine, as I am lost here without it."

#### New England Companies Have First Aid Contest

THE second annual First Aid Contest between New England public utilities under the executive management of Stone & Webster, Inc., held at Rockland, Mass., Oct. 24, was won by the team of the Edison Electric Illuminating Company of Brockton, which scored 98.67 per cent in the three problems assigned to the competing teams.

The other companies participating in the contest and their scores were: The Electric Light and Power Co. of Abington and Rockland (Mass.), 98.33 per cent; Pawtucket (R. I.) Division of the Blackstone Valley Gas & Electric Co., 98 per cent; Fall River Gas Works Co., Fall River, Mass., 97.5 per cent; Woonsocket (R. I.) Division of the Blackstone Valley Gas & Electric Co., 97.33 per cent; Lowell Gas Light Co., Lowell, Mass., 96.67 per cent; Haverhill Gas Light Co., Haverhill, Mass., 95 per cent.

The competition was conducted according to the contest rules of the United States Bureau of Mines. Most of the companies competing have received first aid training from this Bureau. Safety Supervisors of the New England Telephone & Telegraph Company officiated as judges.

Stone & Webster, Inc., are sponsoring this annual event to stimulate interest in first aid work among the employees in companies under their executive management and among the people in the communities these companies serve.



Scene at the first aid contest

#### NATURAL GAS DEPARTMENT

S. W. MEALS, Chairman

H. C. MORRIS, Vice-Chairman

E. J. STEPHANY, Secretary

## Southwest Division Announces Important Program for January Meeting



E. F. Schmidt

SUBJECTS to be discussed at the annual convention of the Southwest Division, Natural Gas Department, American Gas Association, to be held in Shreveport, La., January 14 and 15, indicate clearly the nature of problems in the Southwest.

In at least one important particular the gas business in the Southwest is the exact reverse of the business in the North

and East. This difference is involved in the terms "supply" and "markets." In the East the problem is to secure an adequate supply for the great markets of that section. In the Southwest the problem is one of obtaining mar-

kets for the great sup- · P. McD. Biddison plies of natural gas with which nature has endowed this section.

In this difference of conditions is to be found the reason for the numerous problems that are peculiar to the Southwest. Naturally, a large number of these problems come under the head of "transmission." Isolation of many Southwestern fields and the sparse population of many districts, necessitating the finding of distant markets, give the clue at once to the nature of the transmission questions.

The sectional peculiarities of the business are reflected in the program which Henry C. Morris, vice-chairman of the

Natural Gas Department, and Elmer E. Schmidt, chairman of the committee on papers, have constructed for the meeting.

The program contains two outstanding transmission questions, proper casing of wells and economic problems of high-pressure gas transmission



H. C. Morris

sure gas transmission. Another transmission problem, which probably will be discussed, but which does not appear as

> a formal paper, is leakage from highpressure lines.

P. MacDonald Biddison, of Shreveport, had been engaged by the Louisiana Section of the American Society of Mechanical Engineers to prepare a paper on "Economic Problems of High-



N. C. McGowen

Pressure Gas Transmission" for their meeting, but since this meeting is to be held at Shreveport simultaneously with that of the gas organization the latter is placing Mr. Biddison on its program and the two organizations are to join their meetings for this purpose.

The proper casing of wells is to be discussed in a paper by H. C. Otis, Arkansas Natural Gas Corp., Shreveport, under the subject "Proper Casing and Tubing of Wells."

"Open Flow by Pressure Methods" is to be handled perhaps by E. L. Rawlins of the U. S. Bureau of Mines, Bartlesville, Okla. His discussion, however, will not officially represent the findings of the bureau, but will be his individual views.

The bureau has recently issued a bulletin entitled "Leakage From High-Pressure Natural Gas Transmission Lines" by Mr. Rawlins and L. D. Wosk. This study reveals some interesting findings on the great financial losses which leakage entails and there probably will be some discussion of the subject before the convention.

Because of the scores of hamlets and villages which are being added to the gas lines in the Southwest, especially in Texas, an interesting and vitally important topic is "Ideal Distributing Systems for Communities of 250 to 1,500 Meters." A paper on this subject will be presented by Chester L. May, Dallas, superintendent of the Community Natural Gas Co., a subsidiary of the Lone Star Gas Corp. The importance of this subject to the industry is indicated by the fact that some towns have as few as 35 meters.

The proper classification of accounts is now to the fore in the natural gas industry, and a paper entitled "Proper Classification of Accounts for Natural Gas Producing, Pipe Line, and Distributing Companies" will be read by Joe Zeppa, Shreveport, secretary of the Arkansas Natural Gas Corp.

The latest addition to the natural gas fold among large cities of the Southwest, New Orleans, will be represented on the program by Harold Meade, New Orleans Public Service, Inc. His subject will be "The Development of Sales of Natural Gas and the Rates Necessary to Obtain Business." This title was especially suggested by Oscar H. Fogg, president of the American Gas Association.

At least one woman, and possibly more, will have a place on the program. Miss Lois Upshaw, advertising manager of the Dallas Gas Co., will present a paper on "Gas Company Advertising," explaining the unique methods which she has used to produce some of the most interesting advertisements published in Dallas.

In addition to Mr. Biddison's paper, the Louisiana Section, American Society of Mechanical Engineers, will show a moving picture on the manufacture of seamless line pipe. The two organizations will join in a single meeting for this showing, according to present plans. There will be numerous other discussions.

The meeting is primarily a business conference, and the entertainment features are not numerous but will be adequate to the occasion. The host is N. C. McGowen, Shreveport, member of the advisory board of the Natural Gas Department. Mr. McGowen has volunteered to act as chairman of local arrangements and entertainment. There will be a noon-day luncheon on the first day, Monday, January 14. The same night a barbecue and theatre entertainment will be the attraction.

B. A. Hardy, Shreveport, representing the Moody-Seagraves interests, has expressed a desire to invite the delegates to a barbecue at the Waskom compressor station of the company 23 miles from Shreveport provided it can be arranged.

The great natural gas development around Shreveport and Monroe and other sections of North Louisiana will be of interest to the visitors and several trips to the fields may be arranged. From the moment natural gas was piped from the Caddo oil field to Shreveport in 1906 to the present, the gas evolution of Louisiana has been an epic full of romance and interest. Not the least interesting incident was the coming of natural gas recently to New Orleans after almost a century of manufactured gas in that city.

It is expected that the states of Arkansas, Oklahoma, Louisiana, Texas, and New Mexico will be represented in the large attendance which is forecast. According to Mr. Morris the meeting will be primarily a business gathering to aid in solving the problems of the Southwest and he urges all Southwestern gas men to attend.

# Thoughts on Problems of Great Importance to the Natural Gas Industry

By CHRISTY PAYNE
Standard Oil Company of New York, N. Y.



Christy Payne

THIS undesirable citizen—the bad promoter—is no longer swashbuckling around making trouble and threatening evils to the natural gas industry. He has been laid by the heels, overcome by two illnesses which have consigned him to the hospital

suffering a complete collapse. All this bad luck has come upon him since the Dallas convention of the Natural Gas Department, and no one suspected at that time that these two diseases, appallingly swift in their attack, without warning should so completely subjugate the bad promoter and his dangerous designs. However, this citizen has a tough hold on life, and he will recover ultimately, so it behooves us to be on our guard and ready to mitigate his machinations when he gets his discharge from the hospital.

In other and plainer words, if fuel oil prices get back to normal where gas can readily compete for the industrial market, and if money again becomes plentiful and cheap, we may expect the bad promoter to flourish once more like the plutocrat.

The industry represented here is sincerely interested in and committed to right fundamental principles in natural gas operations, namely:

First: Making available to the public the best fuel known.

Second: Continuity of service without interruption.

Third: Equitable rates and forms of rates sufficient to maintain service and yield a reasonable return on the value of the property.

Presented at meeting of Natural Gas Dept., at A. G. A. Convention, Atlantic City, N. J., 1928.

Fourth: Maintenance of good will in public relations.

Fifth: True conservation of a valuable but easily wasted product.

Sixth: Experienced management.

Seventh: Sound corporate financial structure.

Directing attention to the last of these principles, may I state here some of the things which have been freely talked over with a feeling of alarm among our members.

Every man is interested in the standing of credit which his company has when it goes into the money market for new funds; it is a subject of importance to the industry as a whole. You well know that in the early years of the business, bankers looked askance at a natural gas project, and it was necessary to produce extensions largely out of earnings as the cost of new capital was too high. Hence, corporations did not pay large dividends, but used surplus and depreciation money to reinvest in the properties and as the vears went on, valuable properties were built up with modest but regular earnings. A reputation was the result which finally reacted for credit and lower costs of financing.

The danger is that in a time such as we have just been through when there was a plethora of money all over the country flowing into New York for investment, funds were seeking investment in the natural gas business where the brokerage house was not experienced in natural gas operations and was not sufficiently interested in the fundamental things but chiefly in a profitable place in which to invest the money of clamoring clients. There were quick profit promoters also involved.

In collecting data for this address, I analyzed the statements of 44 companies.

Some of these statements were public bids for sale of securities and were nicely illuminated with maps on which the gas fields were established beyond question because pictured in printer's ink where an investor could see them from his office chair. Other statements were privately available and all relate to promotions or sales of securities in 1926, 1927, and 1928.

Some interesting facts are revealed total issue of first mortgage bonds of operating companies, \$75,996,000: debentures of operating companies, \$37,950,-000; holding company bonds, \$22,000,-000; preferred stock sales of operating companies, \$2,750,000; holding companies preferred stock sold, \$7,500,000; total securities offered or sold, \$124,-196,000. This takes no account of common stocks which have been limited only by the capacity of the engraver. Sixteen of the enterprises issued stock warrants with the bonds, and in two cases the debentures were convertible into common stock.

I have tried to go into an analysis of these securities and companies issuing them, and with some misgivings as to the wisdom of so doing, I venture to give you an opinion of some features of them. In my judgment, there were 23 cases where the equities behind the bonds were not adequate. These cases totaled \$100,000,-000 of securities. There were 20 cases in which I would question a provision for safe and experienced management. These 20 totaled \$71,650,000. There were 14 cases, amounting to \$60,150,000, where the provisions for retirement of bonds by sinking fund or otherwise were not up to good, safe practice.

What, if anything, can be done to protect the natural gas industry is an important question. Just now the continuation of high-priced money stops the marketing of bonds and low-priced fuel oil offered in many parts of the country discourages the promotion of companies which have for their object the sale of gas for industrial use. These two factors beyond

our control are more effective than any sort of restrictive action.

Assume a return of abundant money and a demand for natural gas for industrial use—and what then?

One obvious suggestion is that of a Blue Sky Law on the books of the principal states where securities are marketable. But all the arguments against Blue Sky Laws are particularly emphatic when considering natural gas operations. suggest that it is so difficult to get any commission to understand the necessity of liberality in dealing with the plans for natural gas projects in which profits must be liberal to invite capital to take the risk, that many communities which otherwise would have the benefits of our great fuel might be deprived of them because of the rigidity of restrictions and the lack of sympathetic understanding on the part of those administering the Blue Sky Laws. I would be the last to advocate this sort of legislation. And even with Blue Sky Laws on the books, much damage is done before the laws operate.

I am also unwilling to recommend that the American Gas Association single out the natural gas promotions and attempt any active measures to combat or to slow up the unreliable character of these promotions. I feel that the chance that such measures would create suspicion and distrust such as existed in early days against natural gas securities is one that we ought not now to take. There are many fine natural gas companies now operating with honorable records and valuable credit, and there are a number of bold and finely conceived new enterprises under way which must not be embarrassed by the raising of any danger signals with their far-reaching consequences.

The remedies which commend themselves to me at this time are not radical ones of positive action.

Almost all new natural gas projects are at one time or another or in one phase or another submitted to one or more of the practical executives or engineers in (Continued on page 52)

## Natural Gas-A Fuel and a Raw Material

A Brief Article on Chemicals from Natural Gas

By ALFRED W. FRANCIS
Arthur D. Little, Inc., Cambridge, Mass.

TATURAL gas is produced in Oklahoma, Texas, Louisiana, West Virginia and California at more than one trillion cubic feet per year. Much of this is burned as an industrial and domestic fuel, and properly so because of its abundance as a by-product from petroleum wells, and its convenience as compared with coal. Much of it is burned also for the production of carbon black. especially in localities far from industrial centers. This is also a legitimate industry because of the indispensability of the product for printer's ink and the big demand which exists for it in rubber compounding and in paints. Yet large amounts of natural gas have been wasted because of no immediate use for it. It has been allowed to escape unburned into the air, or burned in the open air in huge quantities.

As a chemical raw material natural gas has many actual and potential uses. Dry gas consists chiefly of methane, while wet gas contains also considerable quantities of higher saturated hydrocarbons, such as butane and pentane. These latter now are usually extracted by compression or absorption, giving natural gasoline for blending ordinary gasoline to make it more volatile. Some of them are chlorinated to amyl chlorides, from which are derived the various amylenes, amyl alcohols, and acetates useful in the lacquer, perfume, and flavoring industries.

#### CHLORINATION OF METHANE

Even methane is chlorinated to some extent, giving methyl chloride, chloroform, and carbon tetrachloride. But the latter two are made more cheaply in another way, and the former can be made only in low yield. It is used in domestic refrigeration and could be converted into

methanol; but the synthesis of methanol from water gas has made that process obsolete. Essentially chlorination of natural gas is an outlet for cheap chlorine and must be regarded as a chlorine industry rather than as a natural gas industry.

The partial oxidation of methane to methanol, formaldehyde, and formic acid has been the subject of numerous investigations. Formaldehyde is the only product which has been detected in appreciable quantities, and even that has never been produced in sufficient yields to justify commercial exploitation.

#### CONVERSION TO WATER GAS

The most promising synthetic possibilities of natural gas depend upon its preliminary conversion to water gas by interaction at high temperature with steam or limited amounts of oxygen. The resulting water gas or mixture of carbon monoxide and hydrogen is preferable to that made from coal because of its freedom from impurities, and its much higher percentage of hydrogen, which is usually required in excess. The principal processes employing water gas are the methanol synthesis and the production of gasoline hydrocarbons (Fischer process) and higher alcohols and synthol. Only the methanol synthesis is now on a commercial basis. Synthol is a mixture of the entire list of aliphatic chemical compounds. Until the process of making it is controllable so as to produce only one or two principal products, it is not likely to be commercially successful.

Water gas is useful also in producing hydrogen which is used in large and increasing amounts in synthetic ammonia, hydrogenation of oils and coal. Here also, the higher percentage of hydrogen in water gas made from natural gas is an advantage. These synthetic processes involve the use of high pressures and temperatures. Improved technique is rendering such processes more and more available to the chemical industry and will make practicable many reactions which were until comparatively recently considered impossible.

Many patents have been taken out for reactions of methane at moderate temperatures to give directly higher saturated and unsaturated compounds or other aliphatic compounds. Some of these patents neglect the actual properties of methane which are characterized by extreme unreactivity except at very high temperatures.

#### CARBON BLACK

Another chemical reaction already referred to is the production of carbon black. Good quality black is made with only about three per cent yield from the gas, and the heat of combustion also is lost. Much higher yields are obtainable by thermal dissociation to carbon and hydrogen, but this requires a temperature of 2200° F. and the product is unfit for printer's ink and has only a limited use in rubber. It should be possible by fundamental research to increase the yield by partial combustion, and still obtain a product of high quality. It might be possible also to conserve the heat produced in the form of power.

Natural gas will remain one of the most convenient and efficient forms of fuel. But as such it furnishes also a most convenient raw material for any purpose to which a fuel may be adapted.

#### Correction

IN the December issue of the Monthly an error appeared in the article describing the award of the Grasseli Medal to H. J. Rose, of The Koppers Co. It was stated in the article that the speech of presentation was made by W. H. Fulweiler, of The United Gas Improvement Co., Philadelphia, Pa. This was incorrect, as A. C. Fieldner, chief engineer, U. S. Bureau of Mines, made the speech and presented the medal to Mr. Rose.

## "Coldest Spot" Will Give U. S. Supply of Helium

THE "coldest spot in the world," created through the engineering genius of the United States Bureau of Mines, will supply the navy's giant dirigibles of the future with helium, the Associated Press reports.

The new government plant under construction at Soncy, eight miles west of Amarillo, Texas, will recover helium from the natural gas of the Amarillo field by cooling it to a temperature of 300 degrees below zero. At this temperature all the constituents of the natural gas, except the helium, are liquefied, permitting it to be drawn off as gas and leaving the residue as liquid.

Because of the extreme low temperatures necessary for the operation of the process adopted by the Bureau of Mines for its new plant, the laboratory has been called "the coldest spot in the world." At the low temperatures to be maintained there, atmospheric air will be liquid, carbon dioxide and mercury will be solids, lead and copper will take on the properties of steel and rubber will be as brittle as glass. In comparison, such temperatures as are found at the North Pole would be unbearably hot.

If an icicle were thrust in with the liquified gases of the laboratory, it would produce the same reaction as obtained when a hot poker is placed in water.

The cost of production of helium in the new plant will be brought down to but a few cents a cubic foot. which is relatively cheap when compared with the rate of \$2,000 a cubic foot for less than 100 cubic feet produced before the United States entered the World War.

The successful trans-Atlantic flight of the giant German air leviathan, the Graf Zeppelin, the Navy Department's plans for building two dirigibles of even larger dimensions, and Great Britain's construction of two palatial air liners have spurred the Bureau of Mines in its helium research. The work is under the direction of R. A. Cattell, chief of the helium section.

Helium has been looked upon by experts as the only safe gas with which airships can be inflated for flight. The Graf Zeppelin and other foreign dirigibles depend upon highly inflammable hydrogen for their buoyancy, while Uncle Sam's airships use helium, which will not ignite.

The United States is the only nation, so far as it is known, having sufficient resources to develop a commercial supply of helium for aeronautics. The Bureau of Mines has been engaged in years of intensive research for new gas fields containing helium.

The Petrolia field in northern Texas was among those of importance first to be discovered.

#### ACCOUNTING SECTION

F. H. PATTERSON, Chairman

H. W. HARTMAN, Secretary

J. L. CONOVER, Vice-Chairman

## Accountants Plan for Active Year



THE Accounting Section of the American Gas Association, under the chairmanship of F. H. Patterson, of Rochester, N. Y., is this year planning to continue the work which it has been doing in the past, and to augment it with several new activities

F. H. Patterson and to augment it with several new activities of importance to the entire industry.

Of particular significance is the appointment of a Joint Committee with the

Of particular significance is the appointment of a Joint Committee with the Commercial Section on Merchandise Accounting. The scope of this committee has been stated as follows: "The committee to prepare an adequate classification for merchandise accounting. Preparation of this classification to take into consideration the requirements and policies of the Commercial Section and the company management with regard to merchandising." H. C. Davidson, of New York, is chairman, and W. R. Evans, of Chicago, is vice-chairman.

Another committee has been appointed to study and report on the forms of organization at present in effect among utilities, the trends toward centralization versus decentralization in departmental organization, and to analyze the objects and advantages of types of organization in performing the functions of the utility and its various departments most efficiently. It is proposed to classify this study from the following standpoints:

1. A large individual company providing service in one large municipality.

2. A large organization with several units operating in contiguous territory.

3. An organization with widespread individ-

A. L. Tossell, of The Peoples Gas Light and Coke Co., Chicago, is chairman of this committee.

There are many continuing committees of the Section, and these committees will in all cases continue the work which has been started by the Section. These committees are as follows:

Committee on Uniform Classification of Accounts, H. M. Brundage, New York, chairman.

Advisory Committee on A. G. A. Statistics, G. E. McKana, Chicago, chairman.

Committee on Fixed Capital Records, C. E. Eble, New York, chairman.

Committee on Cost of Operating Motors and Mechanical Equipment, M. F. Reeder, Chicago, chairman.

Exhibit Committee, Sidney Curren, Newark, chairman.

Insurance Committee, R. T. Kendall, Jackson, Mich., chairman.

Relations with Customers, E. P. Prezzano, Mt. Vernon, N. Y., chairman.

Committee on Functions of the Auditor, D. H. Mitchell, Hammond, Ind., chairman.

Committee on Accounting Office Personnel, Harold Bergen, New York, chairman.

Development of Office Labor Saving Devices, H. E. Cliff, Newark, chairman.

Committee on State Representatives, J. L. Conover, Newark, chairman.

A particularly significant step was taken by the Section in the appointment of a committee to make definite recommendations to the Managing Committee as to how the Section can be of assistance to accountants of the Natural Gas Department. E. B. Nutt of Pittsburgh, Pa., is chairman of this committee, and J. R. Abercrombie, Kansas City, Mo., and L. A. Seyffert, Columbus, Ohio, are members.

#### Book Reviews

The Technology of Low Temperature Carbonization—By Frank M. Gentry, New York Edison Co. Published by Williams and Wilkins Co., Baltimore, Md., 400 pages; \$7.50.

This recently published book covers the fundamental principles of coal distillation, and discusses the products and yields from both high and low temperature processes. From this it may be inferred that the author's title is not inclusive enough. Mr. Gentry points this out in his preface when he writes that "more properly, perhaps, this volume should be entitled 'Technology of Carbonization with Special Reference to Low Temperature Carbonization.'"

The author continues as follows: "The technical differences between high and low temperature carbonization lie in the extent to which distillation is carried, by regulation of temperature and time, and in the procedure adopted for carrying the process to completion."

Many authoritative articles on various phases of low temperature carbonization have appeared in the technical press in the past few years. Indeed, Mr. Gentry gives a bibliography of more than 400 references of value. But, most of these articles have been concerned with data on a particular process or method, and it is gratifying to find that Mr. Gentry's efforts have not been along these lines, but on the contrary have been directed mainly to an unbiased discussion of the entire subject.

The eight chapters are on Fundamentals, Low Temperature Coal Gas, Low Temperature Coal Tar, Low Temperature Coke, Nitrogenous and Other By-Products, Processes of Low Temperature Carbonization, Operation, Design, and Materials of Construction, and Economics.

Those interested in the carbonizing of coal will find this a timely and interesting volume. Achievement—By Leaders in World Affairs. Published by American Educational Press, New York, N. Y. 230 pages; \$2.50.

This interesting little booklet is indeed written by "Leaders in World Affairs." Forty-eight men who have proved themselves leaders in their chosen fields have written especially for this book an outline of the principles which have been found to be guides for character and career building.

The interest of the gas man will be stimulated with the brief remarks of George B. Cortelyou, president of the Consolidated Gas Co. of New York, and first president of the American Gas Association.

Others who have contributed are M. S. Sloan, president of the New York Edison Co.,

Roger W. Babson, economist, Andrew W. Mellon, Secretary of the Treasury, etc.

Frank LeRoy Blanchard, director of Advertising, H. L. Doherty and Co., has the following to say of the book:

"It there is in America today a young man possessing brains who, after reading this book, is not better equipped to make good, then there is something radically wrong in his make-up."

The editors of the book are to be congratulated upon the splendid illustrations. The portrait pictures of the contributors do much to "bring home" the message that they have given.

Goodwill and Other Intangibles—By J. M. Yang, Ph.D. Published by The Ronald Press Co., New York, N. Y. 240 pages; \$450.

The author states that this book "is intended to represent in part a careful analysis and synthesis of current views, and in part a contribution in the development of a comprehensive theory with respect to the treatment of intangibles in the accounts." There are many books and articles on goodwill from a legal standpoint, and these necessarily form a vital part of the modern business library. However, practically nothing is now existent, except Professor Yang's book, which treats this subject from the standpoint of accounting.

The author's method of presentation makes for clarity. His first step is to write of the various phases and interpretations of goodwill and related assets, and following this he takes up the accounting significance.

Indicative of the thoroughness with which this book has been prepared is the chapter on "The Nature of Goodwill." The psychological aspect is first taken up, and following this the economic characteristics. The application of goodwill to different classes of business relations comes next.

A brief review of this nature cannot consider all phases of the book. Needless to say, the volume is one which will be read and studied with great interest, since its subject matter is of importance and has been given relatively little attention up to this time.

The several chapters of the book are titled, Definitions and Characteristics of Intangibles, The Nature of Goodwill, Goodwill and Business Profits, Other Intangibles and Their Relation to Goodwill, The Relation of Goodwill to Superior Earning Power, The Imputation of Excess Earnings to Specific Intangible Factors, The Accounting Treatment of Intangibles Not Acquired by Purchase, Analysis of Specific Non-Purchased Intangibles, Purchased Intangibles—Their Nature and Treatment in Accounts, and Intangibles in Partnership and Corporate Reorganization.

#### PUBLICITY AND ADVERTISING SECTION

E. FRANK GARDINER, Chairman JAMES M. BENNETT, Vice-Chairman CHARLES W. PERSON, Secretary

## Regional Advertising to Be Scrutinized

Publicity and Advertising Section Will Render Comprehensive Plan On New England Endeavor



E. F. Gardiner

A COMPREHEN-SIVE and exhaustive report on the regional form of cooperative advertising will be rendered by the Publicity and Advertising Section sometime in the near future. The Managing Committee of the Section, at a meeting held

on Dec. 18, decided to do this in response to a request from the Committee on National Advertising.

The Committee on National Advertising, of which Clifford E. Paige, treasurer of the Association, is chairman, rendered the following report at a recent meeting of the Executive Board:

"The Committee on National Advertising wishes to amend its report of May 29, 1928, as follows:

"1. The Committee recommends that the regional plan of cooperative advertising as exemplified by the New England experience be approved by the Executive Board as an alternative to any present plan of national advertising.

"2. The Committee suggests that a comprehensive plan be evolved by the Publicity and Advertising Section and offered to the regional and sectional organizations.

"3. The Committee volunteers to assist the Section in the preparation of a plan."

At the Publicity and Advertising Section meeting there was a lengthy discussion of the New England plan. C. D. Williams, secretary of the New England Gas Association, reviewed the high spots of the plan, and answered the various questions asked by members of the Managing Committee. The New England

plan was worked out last year. It has been described in past issues of the Monthly.

It was finally decided that the best means of presenting this report on regional advertising to the industry was through the appointment of a small committee which will collect all the data available and have it printed in a pamphlet for general distribution to all regional and sectional groups in the gas industry.

The following were appointed members of the committee:

Frank L. Blanchard, chairman, H. L. Doherty & Co., New York, N. Y.

& Co., New York, N. Y.
James M. Bennett, The Philadelphia Electric
Co., Philadelphia, Pa.

William H. Hodge, Byllesby Engineering and Management Corp., Chicago, Ill.

Henry Obermeyer, Consolidated Gas Co. of New York, N. Y.

C. D. Williams, secretary, New England Gas Association, Boston, Mass.

Further announcement of the work of the committee will be given in an early issue of the MONTHLY.

At this meeting of the Managing Committee, the following committee to represent the Publicity and Advertising Section to cooperate with the Advertising Committee of the Industrial Gas Section was appointed by the chairman:

John F. Weedon, chairman, The Peoples Gas Light and Coke Co., Chicago, Ill.

J. C. Barnes, New Orleans Public Service, Inc., New Orleans, La.

Harlow C. Clark, The Public Service Electric and Gas Co., Newark, N. J.

tric and Gas Co., Newark, N. J. R. E. Haas, Columbia Gas and Electric Co., New York, N. Y.

Henry Obermeyer, Consolidated Gas Co. of New York, N. Y.

A most important step was taken by the (Continued on page 62)

#### Thoughts on Problems

(Continued from page 46)

the industry. We have heretofore been too complacent in our reports and comments upon projects which contain unsound elements. We are not qualified to condemn enterprises with the authority and analytical astuteness of Professor Ripley, but we are not so dumb or so greedy for fees that we can blink at cases where the gas supply is inadequate or the market is too competitive or the public is already well supplied, or the management is untrained, or the engineering unsound, or the financial structure weak or unfair to the investor and to the public.

Assume a case, for instance, where the producing property is sold at exorbitant prices to the promoter's producing company and then bonded with a top-heavy bond issue, the pipe line is thrown into another company and bonded to the limit of its cost, and the distributing company is loaded with top-heavy bond issue, the pipe line is thrown into another company and bonded to the limit of its cost, and the distributing company is loaded with an unfair contract and then bonded, and on top of these issues a holding company is created and the stocks of the operating companies used collaterally to secure another bond issue or used to support a preferred stock plan which is handed to the public and boosted as being first lien on profits and assets. All this picture is then touched up with an inside management or engineering group to absorb any possible side profits.

I believe we can fairly well say that somebody is out of bounds and should be set back for a play of a different kind, and that it is the duty of any gas man to which such a set-up is submitted to condemn it and to obstruct its being pushed on the public.

Let us, who are believers in the good name and credit of the industry, be firm and outspoken in our criticism of such promotion schemes and block them and force them out into the open, not necessarily to kill the enterprise but to make certain that the investor is reasonably protected and the consumers assured of a corporate soundness that will stand the adversities of bad years and still be equipped with resources that will maintain satisfactory service.

This is the only recommendation I feel inclined to make in an effort to hold good the credit of the natural gas industry.

## Society of Gas Lighting Elects Officers

A T the 52nd annual meeting of the Society of Gas Lighting, held at the Hotel Astor, New York, N. Y., Dec. 13, the following officers were elected:

President, Wm. Cullen Morris, Consolidated Gas Co. of New York, N. Y.

Vice-president, Alfred E. Forstall, New York, N. Y.

Treasurer, Wm. J. Welsh, N. Y. & Richmond Gas Co., Staten Island, N. Y.

Secretary, George G. Ramsdell, American Gas Association, New York, N. Y.

J. Arnold Norcross, New Haven Gas Light Co., New Haven, Conn., was elected a member of the Executive Committee.

The following Finance Committee was selected: Chairman, Oliver H. Smith, Consolidated Gas Co. of New York; George S. Hawley, Bridgeport Gas Light Co., Bridgeport, Conn.; Alexander Forward, American Gas Association, New York, N. Y.

#### The Ditchdigger

IN commenting on the famous poem, "The Ditchdigger," W. L. Abbott, chief engineer, Commonwealth Edison Co., Chicago, Ill., writes that the following is his version, which has lingered in his mind for more than 40 years:

"For whom dig'st thou this grave?"
I asked as I walked along,
For I saw in the midst of London Streets
A dark and busy throng.

Oh, it were a wild, wild deed, Yet a wilder wish to lie Where the hurried throngs of anxious men Should pass him heedless by.

And so, "For whom dig'st thou this grave In the midst of London town?" And the deep-toned voice of the digger replied, "We're laying the gas pipe down."

#### MANUFACTURERS SECTION

H. LEIGH WHITELAW, Chairman

F. G. CURFMAN, Vice-Chairman

C. W. BERGHORN, Secretary

## Department of Commerce Undertakes Plan to Be of Help to Manufacturers

COMPILATION of facts and figures, never before obtained but vitally necessary to the whole range of American business if distribution costs are to be lowered, is the fundamental purpose of the National Distribution Census, according to Gorton James, Chief, domestic Commerce Division, Department of Commerce.

Mr. James declared "the average American manufacturer is operating with almost maximum efficiency from a production standpoint because he has the necessary statistical services to guide him, In the field of distribution, however, there is a woeful lack of essential information. We know that more than half of the consumer's dollar is spent for distribution costs, and we know that this sum is far too high. But we do not know just how to attack the problem because no one has the necessary facts. The prime purpose of the distribution census is to provide much of this information by shedding statistical light on the processes of distribution.

"The next step of the Department of Commerce in its program of assisting business to find the facts to eliminate this waste is the Census of Industrial Purchases, started November 12 in Cleveland. Through it we expect to ascertain the possibility and advisability of obtaining data on inter-industry distribution in the National Census of Distribution, recommended to Congress for 1930."

Representatives of industrial organizations of the nation, realizing the value of the data obtained through the sample census of wholesale and retail distribution made in 11 cities last year, prevailed upon the department to make a similar survey showing the distribution of industrial goods. Because of the great diversification of industry in Cleveland, and the complete cooperation offered by the manufacturers and the Chamber of Commerce, in their invitation to the Department of Commerce, that city was selected for this trial census. It will determine the type and value of information that may be secured.

The data requested include an itemization of the purchases of manufacturers by value, for the year 1927. The items are to be classified by their use into four groups: (1) raw materials (products which have not passed through a process manufacture); (2) semi-finished goods (materials other than raw materials purchased for further processing, or fabrication into the products manufactured by the institution being enumerated); (3) mill supplies (materials used in the general maintenance of the plant, exclusive of material used in the repairs to machinery and the conditioning of plant equipment); and (4) plant equipment (including repair and maintenance supplies for conditioning plant equipment).

The marked progress in recent years in the production of commodities has been based largely on information developed by research, trade association, and the state and Federal Government agencies devoted to promoting the welfare of American industry and commerce. This information has revealed opportunities for eliminating waste of former trial and error methods, and has resulted in increased efficiency in lower business costs.

We now have problems of distribution which, in a like manner, require adequate

factual information to furnish a basis for attacking these problems more intelligently. The buyer is suffering from disproportionate sales expense which is reflected in increased cost of products. The seller has thought it necessary to work many markets that, if the facts were known, probably would not support half the sales outlay assigned to them. On the other hand, the better markets would doubtless support a larger and more scientific outlay of advertising and sales expense. Only by full knowledge of the inter-industry flow of the raw materials, semi-finished products, and manufactured products for assembly, that constitute industrial purchases, together with an adequate knowledge of the distribution to the ultimate consumer, will it be possible to rationalize this process of distribution to the efficient degree that prevails in the processes of their manufacture.

In the 11 cities that have served as a laboratory for the experimental census of retail and wholesale distribution, business men have found the facts obtained of great value in studying the marketing situation. By basing plans for the larger census on experience gained in these samples, mistakes will be avoided and omissions discovered so that the results of the national count will be much more valuable and useful. This survey in Cleveland is a continuation of the policy of the Department of Commerce to investigate thoroughly and practically the questions that should be asked in the proposed census of distribution for the whole United States.

If it is possible to secure the information that the industrial distributors and producers want, to provide basic data for the solution of their problems, it will be an effective step forward in the placing of sales to industry on a more scientific basis. It will assist in forming sales policies, working out sales quotas and logical advertising budgets with minimum waste. Present data are inadequate to enable distributors to analyze industrial markets efficiently.

The committee on waste in industry, in 1921, estimated that the annual wastes in the distribution of consumer's goods may amount to \$8,000,000,000. The movement of industrial goods—the materials that go into production and those that are used by the factories themselves—represents a volume of business almost as large as the volume of consumer goods, so when both parts are combined, some idea is gained of the potential savings which might be realized. This basic census data is necessary for those who are analyzing these problems and seeking the elimination of the wastes of distribution.

#### E. D. Milener Talks on Research

EUGENE D. MILENER, industrial research representative of the American Gas Association, addressed an alumni and undergraduate professional smoker at the School of Commerce, Accounts and Finance of New York University, on Nov. 26. The subject was "Some Thoughts on Research in Industry and Commerce."

Prof. Norse A. Brisco, Dean of the School of Retailing at N. Y. U., was the chairman for the evening. There were about 125 men present.

#### J. B. Nealey Collects Data for Technical Articles



J. B. Nealey

J. B. NEALEY, director of industrial publicity for the American Gas Association, has just completed one of his semi-annual trips around the country collecting data for articles to appear in the various technical magazines. His itinerary this time took him to Buffalo, N. Y.; Detroit and Ann Arbor, Mich.; Cleveland, Columbus, Toledo, Cincinnati, and Dayton, Ohio;

Chicago and Rockford, Ill.; Milwaukee and Racine, Wis.; Pittsburgh, Pa.

Mr. Nealey visited many nationally known plants and analysed the manufacturing and industrial heating process for articles which will shortly appear in the various engineering magazines.

#### INDUSTRIAL GAS SECTION

J. P. LEINROTH, Chairman

C. C. KRAUSSE, Vice-Chairman

C. W. BERGHORN, Secretary

## Industrial Section Completes Organization

Program of Activities for Coming Year Includes New Projects and Continuance of Old Ones



J. P. Leinroth

THE Industrial Gas Section is planning for another year of intense activity. J. P. Leinroth, chairman, and a Managing Committee of the leading industrial gas men from the manufactured and natural gas industries are leading the Sec-

tion in a comprehensive program.

The feasibility of organizing industrial sales councils throughout the country is being considered, and a committee has been appointed to review the situation and to report at an early date.

The advertising program of the Section is to be changed this year, according to announcement of J. F. Weedon, of Chicago, Ill., at the recent meeting of the Managing Committee. In place of 21 trade papers, six college magazines, and one general publication, the industrial gas advertising will appear in two trade papers and three general magazines. The appropriation for this advertising has been increased to \$50,000, and there is also \$5000 available for publicity work.

W. F. Miller, of Chicago, is chairman of the Competitive Fuels Committee. This committee will acquaint the industrial engineer with new or existing competitive fuel applications, acquaint manufacturers with competing fuel applications in order to stimulate initiative in gas equipment development, and suggest methods of gas applications which are successful in competition with other fuels or similar processes.

The Committee on Display and Contact with National Industrial Organizations, with A. M. Apmann, New York, N. Y., as chairman, is making arrangements for active participation in several exhibitions during the year. It will be recalled that this committee has in the past been responsible for the splendid exhibit of gas equipment at the annual Steel Treaters' show.

H. A. Sutton, Newark, N. J., has been chosen as chairman of the Committee on Education of Personnel and Contact with Educational Institutions and Technical Societies. This committee will continue the industrial sales courses which have been offered in past years.

The Hotel and Restaurant Sales Promotion Committee will this year offer specific reports in place of the general reports which have been rendered to give the necessary background to this work. C. H. French, New York, is chairman of this committee.

E. L. Wilder, Rochester, N. Y., is chairman of the Industrial Rate Committee, which will continue its past work, and will also work in close cooperation with the other rate committees of the Association.

The Committee on Large Volume Water Heating, with N. T. Sellman, New York, as chairman, is planning to publish a book on this phase of the business as one of the Industrial Gas Series Booklets. This book will be developed with the cooperation of the Commercial Section, and will include sales methods, markets, rates, development of business, engineering phases, performance, estimating, selection of equipment, etc.

(Continued on page 60)

#### Sales Course Gives "Sales Slants" on Water Heaters

SALES-SLANTING the explanation of the gas water heater is the title of the following analysis of the big selling points for water heating by gas, according to one of the units of the new A. G. A. Course in Domestic Gas Salesmanship:

#### "The Tank Heater Means

- —"Hot water when needed by merely lighting the gas burner
- -- "Elimination of the effort of heating water and carrying it from the kitchen range
- -- "Absolute dependability and safety of opera-
- "Great durability in a very moderately priced appliance
- -"Low cost of operation
- -"And more sanitary and comfortable living conditions

#### "The Semi-Automatic Heater Means

- —"All of the advantages of the tank heater, and in addition
- -- "Freedom from the inconvenience of frequent trips to the basement

#### "The Automatic Heater Means

- —"Instant hot water at the turn of the faucet
  —"Ample supply of hot water, always at a constant temperature
- -"Absolute freedom from effort, work, trips to the cellar, or inconvenience of any kind
- -"Entire dependability and safety of operation
- —"Fewer steps and more leisure for the housewife
- -"Greater ease in cleaning the home
- -"Low initial cost
- -"Great durability of construction
- -"Low operating cost
- -"And more sanitary and comfortable living conditions

"These are the points which are of most interest to prospects, and around which your explanation of the water heater should be built."

#### The New Competition

(Continued from page 36)

This attitude of mind is largely to be traced to the misconception of the character of the gas business, the belief being too prevalent that it still is a monopoly and that it cannot meet competition with competition.

It is particularly with respect to two points that clarity of thinking is needed,

(1) a recognition of the fact that pricing goods in a competitive market is a different matter than pricing them in a monopolistic market and that consequently, the business-getting principle of making rates according to the value of the service rather than the artificial and stifling method of cost allocating should dictate in rate-making. The domestic market for gas is the backbone of the demand and is the part of the load now willing to be assessed for the initial responsibility of paying a return on the maximum investment. The user of gas for domestic cooking at present is willing to pay more than any other significant class of users. He is a customer worth keeping, worth fighting for and worth spending money on getting and retaining.

The gas appliance is the weapon through which gas must compete. Unless the gas utility fully appreciates that appliance sales are a means and not an end, it will lose the advantages of this weapon in the new competition that is upon it. Appliance sales are the frontier upon which the real battle will be fought and lost.

More fundamental than all these is the relatively little attention given the business and economic phenomena compared to the study of technical features of the business. The new competition will probably not be met by some miraculous technical transformation of the industry. Seemingly the older an industry gets the less likely it is that such will be the case. Rather the new competition must be met by basic market research and analysis of fundamental economic trends. Knowledge by the industry of its strength and its weakness and a willingness to look for the more remote and fundamental causes of changes in the market for gas, should help continue to place the gas industry among those industries which have met new circumstances, have rallied resources and intelligence, and have successfully readjusted themselves to the ever changing circumstances of our economic world.

#### COMMERCIAL SECTION

G. M. KARSHNER, Chairman

G. E. WHITWELL, Vice-Chairman

J. W. WEST, Jr., Secretary

## Southern Sales Conference to Be Held January 15-16

THE Second Southern Regional Gas Sales Conference sponsored jointly by the American Gas Association and the Southern Gas Association will be held on January 15 and 16 at the Atlanta Biltmore Hotel, Atlanta, Georgia. The first Southern sales conference held last year set such a high standard in the value of the papers presented and the sales methods discussed to promote the sale of gas and gas appliances that it is fully expected that the second conference will be of equally great practical value to the commercial men of the South.

The topics discussed will be of particular value to commercial managers and to individual salesmen who are directly on the firing line. Each speaker has been selected for the outstanding record that has been made by his company in merchandising gas and gas burning appliances in the particular field under discussion.

Ample time has been allowed for discussion of each paper.

Among the subjects to be discussed will be merchandising methods, what should be expected from advertising, training gas appliance salesmen, symposium of successful selling campaigns, home service as an aid to sales, selling gas refrigeration, proper rate structure for promotional rates, organizing and operating an industrial gas department.

A half day inspection trip will be devoted to restaurants, hotels and large water heating jobs.

Among the speakers scheduled to be heard are P. H. Gadsden, Philadelphia; Jackson P. Dick, Atlanta; J. M. Stafford, Atlanta; Howard Williams, New York; C. S. Reed, New York; W. A. Hudson, Birmingham; Harrison Jones, Atlanta, and others.

## Commercial Men Outline Activities



G. M. Karshner

THE Commercial Section of the American Gas Association has already completed its organization and is looking forward to a year of continued activity and expansion, according to G. M. Karshner, chairman. Already one meeting of the Man-

aging Committee of this section has been held and at this meeting such important problems as trade cooperation, regional advertising and other matters were discussed.

The Regional Sales Conferences which

have been sponsored by this section will be continued in 1929, and altogether five conferences will be held—in New England, New York, Southern, Mid-West and Pacific Coast territory.

An activity of great importance which is being continued by the Commercial Section is the New Course in Domestic Gas Salesmanship. Already more than 2100 enrollments have been received and comments from those enrolled have been uniformly favorable.

The committee work of this section has always been an important part of the activities and this year will be no exception. Among the section's committees are the following: Domestic Range Committee, W. H. Tappan, Chairman.

House Heating Committee, H. B. Johns, Chairman.

Refrigeration Committee, W. H. Gill, Chairman.

Water Heating Committee, C. H. Light, Chairman.

Domestic Laundry Equipment Committee, R. E. Polk, Chairman.

Incineration Committee, F. C. Hoffman, Chairman.

Window and Store Display Committee, R. M. Martin, Chairman.

Home Service Committee, Mrs. Luella M. Fisher, Chairman.

Salesmen's Training Course Committee, Geo. L. Whitwell, Chairman.

Salesmen's Compensation Committee, F. H. Hallock, Chairman.

Architects and Builders Service Committee, R. A. Koehler, Chairman,

These committees are planning their work along very definite lines, and announcements concerning their activities will be made in an early issue of the Monthly.

The section is also cooperating with the Accounting Section in the formation of a Joint Committee on Merchandising Accounting. H. C. Davidson is chairman of this committee. The report of this committee will make recommendations as to the proper methods of pro-rating the cost of operating sales departments as between merchandise sales and new business accounting.

#### Features of Refrigerators in Sales Course

THE Five Outstanding Features of the Gas Refrigerator and How to Present Them" is the title of the following information taken from one of the units of the new A. G. A. Course in Domestic Gas Salesmanship. These data are pertinent, terse, and valuable for every salesman of every gas company.

Here is how the salesmen are taught to stress the outstanding features of the gas refrigerator:

"The columns below show how every part of your demonstration of the refrigerator can be tied up with its practical benefits for the customer."

The Features

1. A splendid refrigerating Unit

2. Absolutely automatic operation by thermostatic control

3. No moving parts of any kind—no motors, compression, belts, or blowers

4. Operated entirely by the tiny gas burner, which shuts off the gas if it goes out

5. The best type of cabinet design and construction

What It Means to the Customer

(a) Low temperatures to preserve even the most delicate foods for long periods (b) Ice cubes always at hand without effort

(c) Ease of preparing frozen mousses and desserts
(a) Freedom from

(a) Freedom from the uncertainty of ice delivery (b) Freedom from

the effort, dirt, and mess of bringing ice into the home (c) Perfect refrigertion at all times

ation at all times, even when away from home (d) Freedom from

the necessity of frequent marketing
(a) Freedom from

noise
(b) Durability and
long life
(c) Freedom from
the expensive servic-

the expensive servicing required by some refrigerators, for there is nothing in the gas refrigerator to wear out (d) No interference

with radio
(e) No need for oil-

ing, tightening belts, etc.

(a) Unusual econo-

my of operation as well as low initial cost—a saving over other kinds of refrigeration

(a) Easy accessibility of foods in the refrigerator(b) Plenty of shelf

space (c) Less clezning required

(d) Economy of operation, because of high quality of insulation

Meeting Notice

THE annual meeting of the Institution of Gas Engineers, London, England, will be held in London, June 4-6, according to W. E. Price, Hon. Secretary.

#### TECHNICAL SECTION

HARRY E. BATES, Chairman

H. W. HARTMAN, Secretary

B. V. PFEIFFER, Vice-Chairman

## Technical Section Work is Organized

Economic and Engineering Survey Work Will Be Center of Activity



H. E. Bates

THE work of the Technical Section for the coming Association year will in the main be concentrated on the continuation of the Economic and Engineering Survey. Harry E. Bates, chairman of the Section, has announced that the Managing Committee

is now complete, consisting of leading technical men from the natural and manufactured gas industries, and that the election of competent committee personnel is about completed.

B. V. Pfeiffer, of The United Gas Improvement Co., Philadelphia, Pa., is the new chairman of the Committee on Economic and Engineering Survey, and he is also vice-chairman of the Section. The committee will continue the task of studying the major economic and engineering factors affecting the development of the gas industry and will coordinate the work and aims of the other committees of the Section through assignment of definite tasks.

The activities for the coming year to be under the jurisdiction of the main survey committee include work of the Sub-Committee on Mixed Gas Research, F. C. Weber, chairman; work of the Sub-Committee on Use of Off Peak Water Gas Equipment, A. C. Fieldner, chairman; work of the Committee to Study Dr. Arthur D. Little's Convention Address and the Research Recommended; the Application of Formula and Theory Involved in Frank W. Steere's Address to Specific Gas Appliances; work of the

Sub-Committee on Economic and Engineering Problems Involved in Changing from Manufactured Gas to Natural Gas; Statistical Studies, etc.

The other committees of the Section are:

Carbonization Committee, J. G. Postles, Philadelphia, Pa., chairman.

Chemical Committee, H. J. Rose, Pittsburgh, Pa., chairman.

Committee on Dehydration of Gas, F. W. Sperr, Jr., Pittsburgh, Pa., chairman.

Distribution Committee, F. M. Goodwin, Boston, Mass., chairman.

Water Gas Committee, J. H. Wolfe, Baltimore, Md., chairman.

In addition the Section has the usual standing committees such as Nominating, Convention, etc., as well as an Advisory Committee on Research.

Further details of the work of the Technical Section committees will be given in early issues of the A. G. A. Monthly.

An important part of the work this year will be the successful promotion of the annual distribution and production conferences. These conferences have been especially popular in the past, and there is every indication that they are rapidly assuming a relatively important place in the world of gas engineering. Further details of these conferences will be announced shortly.

JOHN J. O'BRIEN, president of H. M. Byllesby and Company, announces the organization of Empresa de Servicios Publicos de los Estados Mexicanos, S. A., (Mexican States Public Service Company, Incorporated) for the acquisition of utility and industrial properties in Mexico.

#### James W. Campbell Is Appointed

JAMES W. CAMPBELL, M.Sc., A.M.I., Mech.E., has been appointed secretary of the Institution of Gas Engineers. His address is 28, Grosvenor Gardens, Westminster, S.W.1., London, England.

#### New Record of Sales

(Continued from page 5)

been one of the most interesting developments within recent years. By-product coke has replaced all but 15 per cent of the coke produced in the United States, rising from 27.5 per cent in 1913 to 86.2 per cent in 1927. By the end of next year it is expected that by-product coke will account for 90 per cent of the coke produced in America.

The natural gas industry of America is developing at a remarkable rate. The extension of pipe lines and the development of natural gas producing territory in the Southwest have been phenomenal. A check-up of the population within the natural gas zones reveals an aggregate of about 30,000,000. Within those areas the natural gas industry now furnishes gas service to more than 4,000,000 families and reaches a population in excess of 16,000,000.

#### **Industrial Section**

(Continued from page 55)

J. F. Quinn, Brooklyn, N. Y., chairman of the Progress Committee, plans to continue the work of collecting and publishing operating data on gas installations throughout the country and will cooperate closely with the Competitive Fuels Committee.

The splendid work of the Publicity Committee and the Sales Methods Committee will be continued, with Harold Andrew, New York, and E. C. Weston, Toledo, chairman of these respective committees.

The Survey Committee is planning to publish a booklet on the industrial gas survey, containing such items as the purposes of surveys, how to make, and how to use them. R. L. Manier, Syracuse, N. Y., is chairman of this committee.

A new committee has been started, with C. C. Krausse, Baltimore, Md., as chairman. This is the Committee on Recognition of Gas Fuel by Equipment Manufacturers and National Consulting Engineers, and will serve as a clearing house for information desired by equipment manufacturers and consulting engineers.

#### New Gas Brass Melter

(Continued from page 10)

the research that had preceded the public showing of this machine, and they expressed the opinion that it was many steps ahead of previous gas brass melters. Much interest was displayed in how the melter would fit into their factories.

"Rhode Island Industry Glorified" was a part of a well-organized movement throughout New England to create a consciousness and pride in the manufacturing concerns of the section and to advertise the products of these factories to the world. Probably more organized research in improving manufacturing methods and distribution methods has been conducted in New England than in any other section. Industrial gas is playing a mighty part in modernizing New England industry and the new gas rotary brass melter bids fair to carry this progress forward still another step.

#### Crime to Burn Coal

(Continued from page 29)

representing in new forms the smoke that once was heedlessly wasted from chimneys.

Eventually soft coal for fuel will be obtainable only in compressed cakes representing the heat-giving residuum of the mineral after the more valuable constituents have been extracted. And it is by no means inconceivable that the judgment of science will then be enforced by law, and the burning of raw soft coal will be a statutory crime.

#### New Meter Booklet Is Published by A. G. A.

A NEW 56-page booklet entitled, "Instruc-tions for the Care and Repairing of Gas Meters," is now available for general distribution as a result of the work of the Committee on Cooperation with Educational Institutions,

Chairman, W. Griffin Gribbel.

The text for this publication was prepared by George A. Lane, superintendent of meter division, The Peoples Gas Light and Coke Company, Chicago, Ill., and William A. Castor, superintendent of meter division, The Philadelphia Gas Works Company, Philadelphia, Pa., outstanding authorities on the maintenance of gas meters. Messrs. Lane and Castor had the assistance of many prominent meter experts and manufacturers in the preparation of this work.

This pamphlet is intended to take the place of the manual formerly published by the Iowa State College in conjunction with the Mid-West Gas Association. While it is prepared primarily for use as text in connection with meter schools, it is valuable reference material for every gas man having anything to do with

meters.

The pamphlet describes the functions, placement, care and operation of meter provers; the handling, testing, repairing of tin and iron case; and meter records. The history and construction of meters is covered. The publication is profusely illustrated.

Copies can be secured at 25 cents each from the American Gas Association, 420 Lexington

Avenue, New York, N. Y.

#### **Utility Association Secretaries** Meet

THE Seventh Annual Conference of Utility Association Secretaries was held in New

York City, December 3, 4 and 5.

One session was spent in each of the headquarters offices of the American Electric Railway Association, the American Gas Association, and the National Electric Light Association. Edward F. McKay, chairman, presided.

The programs at the various association headquarters consisted mainly of brief and informal talks by members of the staffs of the organizations. These talks gave the details of associa-

tion work, policies, etc.

Among the important addresses given was that of Geo. B. Cortelyou, president of the Consolidated Gas Co. of New York, who spoke on "Propaganda-Right and Wrong." Another interesting feature was a symposium on association journals and publications, in which the editors of various magazines took part.

The conference met at the American Gas Association Headquarters on Tuesday morning, December 4. H. W. Hartman, assistant manager, welcomed the conference, and following this K. R. Boyes, secretary, conducted an inspection tour of the office. O. H. Fogg, president of the A. G. A., then gave a brief address on "Progress, Problems and Prospects of the Gas Industry," which was followed by "Headquarters Organization of the A. G. A." by Alexander Forward, Managing Director. Following this, the specialized services of the A. G. A. were outlined by the Association's staff members.

O. A. Weller of Denver, Colo., was elected chairman and Harold Buch of Harrisburg, Pa., secretary of the Utilities Association Secretaries. The meeting next year will be in Chicago dur-

ing the first week of December.

#### Section of Oklahoma Gets Natural Gas

A LARGE section of western Oklahoma, which heretofore has been forced to depend almost wholly on coal for fuel, was brought into the natural gas service belt recently when the 165-mile, 14-inch gas pipeline of the Consolidated Gas Utilities Co. was put in operation. This line extends from the Wheeler County, Texas, gas fields to Enid, Oklahoma, and has a carrying capacity of about 35,000,000 cu.ft. of gas per day.

#### OUR NEW MEMBERS

ACTIVE MEMBERS

Schrader, H. D., Public Service Co. of Colo.,

P. O. Box 2242, Denver, Colo. Rowe, Donald C., Public Service Elec. & Gas Co., 80 Park Place, Newark, N. J Nislar, Oscar L., Nislar Hardware Co., Lubbock, Texas.

Hutchison, Robert M., San Antonio Public

Service Co., San Antonio, Texas. Lyons, Harold H., Union Utilities Inc., 46

Cedar St., New York, N. Y.
Nordensson, C. O., Lee B. Mettler Co., 830
San Fernando Bldg., Los Angeles, Calif.
Seaberg, Grover E., S. R. Dresser Mfg. Co.,
Bradford, Pa.
Moore, Young Lee, 3704 Swiss Ave., Dallas,

Reynolds, O. R., Chattanooga Gas Company, 811 Broad St., Chattanooga, Tenn. Hamilton, Frank E., Allied Chemical & Dye

Corp., 61 Broadway, New York, N. Y.
O'Rourke, William J., Jacksonville Gas Co., P. O. Box 230, Jacksonville, Fla.

Ziegler, Roy A., Jacksonville Gas Co., P. O. Box 230, Jacksonville, Fla.

Johnson, Jos. M., Jacksonville Gas Co., P. O. Box 230, Jacksonville, Fla.

Schlatter, George H., Jacksonville Gas Co., P. O. Box 230, Jacksonville, Fla.

Daugherty, Robert F., Jacksonville Gas Co., Box 230, Jacksonville, Fla.

Boote, Jos. O., Jacksonville Gas Co., P. O.
Box 230, Jacksonville, Fla.

Rogers, William Ed., 414 Woodland Ave., Avon, N. J. Clark, C. P., Clark Bros. Co., Olean, N. Y. Pickrell, David D., Dixie Gulf Gas Co., Esperson Building, Houston, Texas.

French, Hal W., Hill, Hubbell & Co., 11 Broadway, New York, N. Y. Keeler, Hugh Edward, University of Michi-

gan, Ann Arbor, Michigan. Hori, Yutaka, Tokio Gas Co., No. 3, Hikawacho, Akasaka, Tokio, Japan.

Forney, R. H., Forney Combustion Engrg. Co., 305 Thomas Building, Dallas, Texas. Bill, Arthur G., Central Illinois Light Co., 316 So. Jefferson St., Peoria, Ill.

Rapp, Howard C., Union Gas & Electric Co., Cincinnati, Ohio.

Francisco, F., Century Stove & Mfg. Co., 1324 W. 12th St., Kansas City, Mo. Sooy, Curtis, Atlantic Gas Co., 15th & Locust

Sts., Philadelphia, Pa.

#### Largest Holder Dedicated

(Continued from page 30) product particularly in industrial lines in perfecting salesmanship, in statistical and accounting methods, in technical skill and genius. With special pleasure and appreciation do I record here that the knowledge and experience of the men and women in the Insull companies are always freely and generously at the service of the industry, through the Association's committees or otherwise and that they demonstrate at all times their faith in the destiny of the gas industry to furnish the fuel of the world.

"The great structure we have just seen put into service is a natural product of a great organization. It is a striking example of careful planning ahead in the public service plus the best obtainable scientific skill possible only under private ownership and management.

'So I paraphrase my friend in the Eternal City and say 'What a dandy setup for a gas company,'"

Messages of commendation from the gas industry and from commercial aviation interests have been received by The Peoples Gas Light and Coke Co. The aviation division of the U.S. Department of Commerce wrote as follows:

"The working and lighting of this structure for the benefit of aviation is a very valuable contribution to aeronautics."

#### Regional Advertising

(Continued from page 51)

P. and A. Section in the appointment of a Committee on Financial Advertising and Publicity. This committee will endeavor to contact with securities houses interested in the gas industry for the purpose of increasing the effectiveness of gas publicity and its wider distribution.

The following were appointed members of the committee:

P. A. Erlach, chairman, American Gas and Power Co., New York, N. Y.

H. V. Bozell, Bonbright & Co., New York,

W. A. Pennington, Utilities Securities Corp., Chicago, Ill.

C. M. Withington, Pynchon and Co., New York, N. Y.

Paul Ryan, A. G. A. Headquarters.

The Publicity and Advertising Section of the A. G. A. now has the following committees:

Nominating, Advisory Committee on A. G. A. Monthly, A. G. A. Advertising Service, Regional Advertising, Industrial Gas Advertising, and Financial Advertising and Publicity.

#### House Heating Advertised

(Continued from page 25)

a touch of life to an otherwise static furnaceroom scene. Though in that initial sketch the pup was purely incidental, the copy department utilized the opportunity by adding the caption, 'Your pup can be your furnace man,' to express crisply the complete elimination of manual furnace-tending which is accomplished by a modern automatic gas heating plant.

"From that point to the time that his name -to borrow a theatrical analogy-went up out in front in electric lights,' that is, into headlines and pictorial emphasis, was only a few weeks, so rapid was the pup's climb to stardom. Today the pup not only appears in every publication advertisement and every piece of printed matter, but he is reproduced in a special red, black and gold nameplate on the front of each furnace, and a papier mache effigy goes to every Bryant purchaser who will supply the names of a few logical prospects in his locality. His popularity has been deserved and emphatic, right from the start-off, with the Bryant organization, and with architects, contractors and gas company officials."

## Associations Affiliated with A. G. A.

Canadian Gas Association

Pres.—Frank Elcock, Ottawa Gas Co., Ottawa, Ont. Sec.-Tr.—G. W. Allen, 7 Astley Avenue, Toronto. Conv., June 13 & 14, 1929, Ottawa, Ont.

Empire State Gas and Electric Association

Pres.—Chas. S. Ruffner, Mohawk Power Corp., Albany, N. Y.
Chairman Gas Section—H. E. Merrill, Republic Light
& Power Co., Tonawanda, N. Y.
Sec.—C. H. B. Chapin, Grand Central Terminal, New
York, N. Y.
Conv., 1929.

Illinois Gas Association

Pres.—J. A. Strawn, Central Light Co., Peoria, Ill. Sec.-Tr.—George Schwaner, 305 Illinois Mine Workers Bldg., Springfield, Ill. Conv., March 13 & 14, 1929, Springfield, Ill.

Indiana Gas Association

Pres.—T. J. Kelly, Northern Indiana Public Service Co., Fort Wayne, Ind.
Sec.-Tr.—F. W. Budd, Central Indiana Gas Co.,
Muncie, Ind. Conv., 1929.

Michigan Gas Association

Pres.-F. A. Newton, Consumers Power Co., Jackson, Mich. Sec.-Tr.—A. G. Schroeder, Grand Rapids Gas Light Co., Grand Rapids, Mich. Conv., July 1 to 3, 1929, Mackinac Island, Mich.

Mid West Gas Association

Pres.—Louis Stein, Minneapolis, Minn. Sec.-Tr.—A. W. Schmidt, Des Moines Gas Co., Des Moines, Iowa. Conv., 1929, Minneapolis, Minn., April 15-17, 1929.

Missouri Association of Public Utilities

Pres.—A. E. Reynolds, Springfield Gas & Electric Co., Springfield, Mo. Sec.-Tr.—F. D. Beardslee, 315 N. 12th St., St. Louis, Sec.-Tr.-F Mo. Conv., 1929, Sedalia, Mo.

New England Gas Association

New England Gas Association

Pres.—G. W. Stiles, Portland Gas Light Co., Portland, Me.

Exce. Sec.—C. D. Williams, 41 Mount Vernon St.,
Boston, Mass.

Chairman Operative Div.—Isaac T. Hoddock, Cambridge Gas Light Co., Cambridge, Mass.

Secretary Operating Div.—H. G. Taylor, Lawrence Gas & Electric Co., Lawrence, Mass.

Gov. Sales Div.—M. B. Webber, Mariboro-Hudson Gas Co., Boston, Mass.

Sec.-Tr. Sales Div.—J. H. Sumner, 719 Massachusetts Ave., Cambridge, Mass.

Pres. Industrial Div.—E. W. Berchtold, Boston Con. Gas Co., Boston, Mass.

Sec.-Tr. Industrial Div.—L. E. Wagner, Providence Gas Co., Providence, R. I.

Chairman Acctg. Div.—W. A. Doering, Boston Con. Gas Co., Boston, Mass.

Sec.-Treas. Acctg. Div.—W. A. Doering, Boston Con. Gas Co., Boston, Mass.

Chairman Manufacturers Div.—Merle E. Abbott, Glenwood Range Co., Taunton, Mass.

Chairman Manufacturers Div.—J. H. McPherson, 7

Water St., Boston. Mass.

Conv., Feb. 6 & 7, 1929, Hotel Statler, Boston, Mass.

New Jersey Gas Association

Prea.—H. A. Stockton, County Gas Co., Atlantic High-lands, N. J.
Sec.-Tr.-Louis Stocker, Public Service Electric & Gas Co., Newark, N. J.
Conv., 1929, Trenton, N. J., April, 1929.

Ohio Gas and Oil Men's Association

Pres.—J. J. McMahon, The East Ohio Gas Co., Cleve-land, O.
Sec.-Tr.—Wm. H. Thompson, 811 First National Bank Bldg., Columbus, O.
Conv., March 5 & 6, 1929, Columbus, Ohio.

Oklahoma Utilities Association

Pres.—L. W. Scherer, United Telephone Corp., Yale, Okla.
Mgr.—E. F. McKay, 1020 Petroleum Bldg., Oklahoma City, Okla.
Conv., March 12-14, 1929, Oklahoma City, Okla.

Pacific Coast Gas Association

Pres.-C. H. Dickey, Hotel Fairmont, San Francisco, Calif. Exec. Sec.—Clifford Johnstone, 447 Sutter St., San Francisco, Calif. Conc., Sept. 10 13, 1929, at Del Monte, Calif.

Pennsylvania Gas Association

Prea.—Mark Pendleton, Pennsylvania Gas & Electric Co., York, Pa. Sec.-Tr.-Geo. L. Cullen, Harrisburg Gas Co., Harris-burg, Pa. Conv., April 10 & 11, 1929, Benjamin Franklin Hotel, Philadelphia, Pa.

Pennsylvania Natural Gas Men's Association Pres.—George W. Ratcliffe, Columbia Gas & Electric Corp., Pittsburgh, Pa., Sec.-Tr.—E. J. Stephany, Equitable Gas Co., Pittsburgh, Pa. Conv., 1929.

Southern Gas Association

Pres.—Roy A. Zeigier, Jacksonville Gas Co., Jacksonville, Fla. Sec.-Tr.—J. P. Connolly, 141 Meeting St., Charleston, S. C. Conv., April 23-25, 1929, Memphis, Tenn.

Southwestern Public Service Association

Pres.-W. H. Burke, Stone & Webster, Inc., Houston, Texas. Chairman Gas Section—R. A. McNees, San Antonio Public Service Co., San Antonio, Texas. Sec.—E. N. Willis, 403 Slaughter Bldg., Dallas, Sec.—E. N. Texas.

No Convention, 1929.

The Public Utilities Association of Virginia Pres.—A. W. Higgins, Virginia Public Service Co., Charlottesville, Va. Sec.—A. B. Tunis, 391 East Grace St., Richmond, Va. Conv., 1929.

Wisconsin Utilities Association

Pres.—C. R. Phenicie, Wisconsin Public Service Corp., Green Bay, Wis. Exec. Sec.—J. N. Cadby, 432 Broadway, Milwaukee, Wis. Conv., 1929.

Eleventh Annual Convention of the American Gas Association October 14-18, 1929 Atlantic City, N. J.

Annual Meeting of Natural Gas Department

Kansas City, Mo.

May 6-10, 1929

## Employment Bureau (Address All Communications to Key Number)

#### SERVICES REQUIRED

GAS ENGINEER: Company manufacturing gas plant apparatus has an opening for a gas engineer. Must be familiar with water gas plant operation and apparatus. About 30 to 35 years of age. Give detailed experience and salary expected in applying. Address A. G. A.

Key No. 0117.

WANTED—GAS Sales Engineer experienced in application of gas, particularly in industrial processes. Address American Gas Association stating age, experience and salary desired. Key No. 0118.

WANTED—By large producing coal and coke company, Combustion Engineer familiar with gas, byproduct plant and boiler operation, to cooperate with Sales Department. Prefer man with experience in New England and Eastern Territories. State reference and detail experience. Address A. G. A. Key No. 0121.

GAS SALES ENGINEER—Large Eastern Utility Company desires engineering graduate, preferably with experience in application of gas to industrial processes. Please state age, education, experience, and salary desired. Address A. G. A. Key No. 0122.

WANTED—Gas Engineer—Must have technical training and be experienced in small gas plant operation and design, also design of distribution systems. State salary and give complete experience first letter. Address A. G. A. Key No. 0125.

A LARGE GAS COMPANY in an Eastern city wants an industrial gas man of some experience. Address A. G. A. Key No. 0130.

A LARGE Middlewest Utility requires the services of two industrial gas sales engineers, familar with all kinds of industrial gas heating processes. Please state age, education, experience and salary desired. Address A. G. A. Key No. 0131.

WANTED. Young man, preferably married, as Manager of Billing and Collecting Dept. Office personnel, including meter readers, consisting of 10.

Man experienced in stub accounting preferred.

Total gas, electric and water accounts, 14,000.

Location, southern New England. Give detailed experience and salary expected. Address A. G. A.

Key No. 0132.

#### SERVICES OFFERED

HOUSE HEATING MANAGER—Desires a change from present location. Thoroughly experienced in gas heating and also gas refrigeration. Technical graduate, 26 years old. Single. Available within reasonable length of time after notice is given to present employers. Address A. G. A. Key No. 262.

WANTED:—Position with Stove Company. Am thoroughly familiar with manufacture, designing and perfecting gas ranges, heaters and coal ranges. A-1 references. Address A. G. A. Key No. 263.

CHEMICAL ENGINEER-38 years of age-15 years' experience in water and Coal Gas Plant operation, construction, distribution, and By-Product

Plant work, desires connection as Gas Engineer with a holding company, or large individual gas company. Address A. G. A. Key No. 265,

WANTED—Position as manager of a small gas company or assistant superintendent of a larger company, by practical man, 36 years old. Married. 12 years' experience including water gas plant operator both high and low pressure, also all branches of distribution. Best of references. Address A. G. A.

GAS ENGINEER with twenty years' wide, practical experience in the design, construction and operation of coal, water, coke oven, and natural gas plants and distribution systems located in all parts of the U. S. A., is desirous of an opportunity in a similar capacity with consulting engineer or holding company. Experience covers large, medium and small properties. Technical Key No. 268.

WANTED-Position as manager of industrial department as well as house heating, commercial, hotel and restaurant work. Now with large company in above capacity. Middle age, good experience and reference. Can handle large job. Address A. G. A.

MANAGER OR GENERAL SUPERINTENDENT—
25 years' experience in the construction, manufacture, distribution, valuation, public relations, and sales. Both coal and water gas, high- and low-pressure. Age 40 and married. Good references. Act of Address A. G. A. Key No. 270.

EXECUTIVE, graduate engineer, 15 years experience, construction, operation, management, mostly electric light and power public utilities. Schooled by a financial leader of the industry, especially in reduction of operating expenses. Knowledge of state regulatory requirements. Would be interested in holding company appointment, preferably salary plus percentage of effected savings per annum. Address A. G. A.

Key No. 273.

OPPORTUNITY to secure services of experienced gas range salesman as representative of manufacturer in Eastern Territory. Knowledge of gas appliances covered by 15 years experience, both local and travelling. Utility and general trade. Available January 1, 1929. Address A. G. A. Key No. 276.

GAS ENGINEER. College trained, thirty years old, married and employed at present. Nine years' experience in operation many types and sizes of coal, water, blue and producer gas plants. Address A. G. A.

Key No. 27.

EXPERIENCED CONSTRUCTION ENGINEER and designer with a good technical background and structural steel experience desires to locate in New York or vicinity. Address A. G. A. Key No. 278.

EXECUTIVE, graduate Mechanical Engineer with 20 years' experience in design, construction, operation and management of Gas Properties. Competent to handle all local affairs, increase business and reduce operating costs. Would like appointment as Manager of small property, or Division Manager or Gas Engineer of close connected group. Age 41. Married. Good references. Address A. G. A. Key No. 279.





# Advisory Council

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W. C. BECKJORSNew	York, N. Y.
W. C. BECKJORS. New	w York, N. Y.
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R. J. CAMPIUM	
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DeWarr CLERTON	mbridge, Mass.
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J. P. HAPPENRAMP	ochester, N. Y.
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	Proporter supplied A. C. RAT proportion state New York, M. Y.
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Bretlenal	Tion-Pres
	Vin-Pres
Sectional.	Vice-Pres PRANK GARDINER Chicago, Ili.
	Vice-Pres
Becklenal '	Vice-Pres
	Vice-Prod
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CHAS. M. CORN	altimore, Md.
CHAS M. COMM	low York, N. Y.
J. S. DeHART, Jr.	ewack, N. I.
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### Section and Department Officers

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